

University News

MONDAY, NOVEMBER 27, 1989

Rs. 2.50

East Zone Inter-University Youth Festival
BANARAS HINDU UNIVERSITY
NOVEMBER 10-14, 1989



Odissi Classical Dance by Utkal University

BANARAS HINDU UNIVERSITY

(Advertisement No. 4/1989-90)

Applications are invited for the undermentioned posts. The benefit of Provident Fund/Pension, Dearness Allowance, House Rent Allowance and City Compensatory Allowances are admissible according to University rules. The retirement age is 58 years unless otherwise revised. The appointment will be made on one year probation. Higher starting salary within the grade is admissible to specially qualified and experienced candidates.

Applications will be entertained on the prescribed form duly supported with a Bank Draft/Indian Postal Order/Overseas Postal Order of Rs. 10/- (of Rs. 2.50 for the candidates belonging to Scheduled Caste/Scheduled Tribes category in favour of the Registrar, BHU towards application fee. Application form will be supplied on receipt of crossed I.P.O./Bank Draft of Rs. 2/- in favour of the Registrar, B.H.U. and self-addressed envelope of 23 cm x 10 cm size, carrying stamps of Rs. 2.60. The University will not defray the travelling or other expenses of candidates called for interview but shall contribute actual Railway fare by shortest route for second class plus reservation charges for sleeper and/or the actual Bus fare from the candidates' normal place of residence in the case of candidates called for interview. Candidates from outside India shall be entitled to actual Railway fare by shortest route for second class plus reservation charges for sleeper and/or actual Bus fare from the port of entry to the place of interview.

Application for each post be sent separately alongwith attested copies of certificates and mark-sheets in support of the qualifications and experience mentioned in the application and be addressed to the Registrar (Selection Committee Section), Banaras Hindu University, Varanasi-221005. INDIA.

Incomplete application in any respect will not be entertained for consideration. Those who are in service should apply through proper channel. Money Order or Cheque will not be accepted towards application fee.

The last date for receipt of application in the Office of the Registrar (Selection Committee Section), Banaras Hindu University either by post or by hand will be **December 18, 1989**. Applications will be received by hand at the Counter from 10.30 hrs. to 14.30 hrs. on each working day till the last date. No application shall be entertained after the last date from external, in-service employees and the candidates residing abroad.

Note : Those who have already applied timely for these posts in response to our earlier Advertisement No. 3/1988-89 need not apply again.

1. DEPUTY REGISTRAR (Five—Two posts reserved for S.C./S.T. candidates).

Grade : Rs. 3700-125-4950-150-5700.

Qualifications : Essential

1. A Postgraduate degree with at least 55% marks or its equivalent grade.
2. 8 years experience as a Lecturer in a College or a University with experience in educational administration.

OR

Comparable experience in research establishment and other institutions of higher education.

OR

8 years administrative experience as Assistant Registrar or in a post carrying a scale of pay of Rs. 2200-4000.

Note : The requirement of 55% marks at Postgraduate may be relaxed, not below 50%, in the case of candidates possessing long administrative experience and outstanding performance.

2. ASSISTANT REGISTRAR (Five—Two posts reserved for SC/ST candidates).

Grade : 2200-75-2800-100-4000.

Qualifications : Essential

1. A Postgraduate degree with at least 55% marks or its equivalent grade.

Note : 1. The requirement of 55% marks at Postgraduate may be relaxed, not below 50%, in the case of candidates possessing long administrative experience and outstanding performance.

2. Direct recruitment will be made on the basis of a written test and interview.

UNIVERSITY NEWS

Autonomy in Action

19 JAN 1990

VOL. XXVII NOVEMBER 27
No. 48 1989
Price Rs. 2.50

A Weekly Chronicle of Higher
Education published by the
Association of Indian Universities

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Editor :
SUTINDER SINGH

Restructuration of Undergraduate Courses in Autonomous Colleges

Francis Soundararaj*

Rise of Autonomous Colleges

With a considerable increase in the number of colleges in our country after Independence, affiliating universities tended to grow unwieldy. Academic decisions became relentlessly uniform and they ignored local needs. Innovations in educational reform were hampered and the initiative and motivation of individual institutions suffered for want of freedom. Justifiably, therefore, the National Policy on Education, 1986 sought to replace the traditional affiliating system in university education by "a more creative association of universities with colleges". Such a proposal envisaged conferment of limited autonomy upon "outstanding colleges or a small cluster of very good colleges within a large university" in order that "they may frame their own rules of admission, prescribe courses of study and conduct examinations". The venture was to be "a joint pursuit of scholarship and excellence by teachers, students and the management."

While such a decentralisation gave the individual college or cluster of colleges greater room for independent thinking and action in order to improve higher education, the government's subsequent planning added new dimensions to the task chiefly by way of realizing the goal, namely, the making of higher education, on the whole, relevant to the needs of the country. The revised guidelines issued in 1986 are quite significant. They seek to establish the relationship of the autonomous college with the university and the government in terms of "creative association" and control. They also provide a blue print for the procedures of utilisation of autonomy. Of these, I shall be concerned with those of structuring courses in an autonomous college.

Rationale of Courses-Structure

Under the new arrangement the curriculum of an autonomous college will have two goals : Social and Academic. The social goal is that of serving local needs by bringing educational curricula to bear upon the neighbouring community, industry and institutions. This is expected to open young minds to nobler thoughts about one's own context in life besides awakening in them a desire to serve where one belongs. The curriculum will therefore offer courses which are contextually relevant and largely depart from conventional courses which aim at rote learning. Consequently the methodology will change for the

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better. The social goal also seeks to democratize education in the process by making benefits available to a larger student body and indirectly to the local community.

The academic goal of autonomy seeks to provide for the cultivation of mind and training of skills. Pursuit of higher knowledge in a chosen discipline will be primarily learner-participatory. This may well be achieved through institutional motivation and initiative to seek and find appropriate pedagogy which would shed much dead load of conventional teaching methodology.

The twin goals—social and academic—of the curriculum would, it is hoped, produce rounded citizens, not mere bookworms, the development of whose mental faculties will match the development of their moral and social sensibility. Such men and women would be employable and responsible citizens as their enlightenment would not let them look down upon the use of skills in the context of their life and work where they belong.

These goals provide for two broad categories of courses : *Foundation courses* which, by definition, are the basis from which one takes off into higher reaches of knowledge; and *Core courses* which deal with knowledge *per se*. The former equip the learner with tools of communication, both oral and written, which helps him to conduct his inquiry into knowledge effectively and with profit. The latter involve him in the practice and profession of the knowledge he acquires in some depth and with reasonable mastery.

Critique of the Rationale

When one thinks through such a bipartite course structure one can at once perceive the discontinuity or inadequacy of it especially as a means to realize the twin goals of education we have set for higher education. The bipartite course structure is still unilateral in the educational development of the learner. It seeks to produce thinking individuals (with both foundation and core courses heavily conditioning the mind in the direction of book learning) who may not be responsive to social and societal or personal needs. The competitive pursuit of degrees for the sake of degrees rather than of education for creative purposes might be the inevitable result of such a strategy. Those who obtain such education may be successful rather than good, may think fast but do far less. Education thus degenerates into mentalist development to the exclusion of other faculties.

The bipartite course structure misses a third and crucial dimension, namely diversification of curriculum in order to provide the wherewithal to train skills which are other than mental. The need to train the hand and the leg, the muscle and the bone on the one hand and the necessity to acquire the wisdom of right application of the right skills at the right time on the other are both ignored by the bipartite structure. The coordination of mind and body, of the head and the heart makes the individual whole.

Improvement of the Rationale and Structure

It becomes necessary, therefore, to restructure the curriculum with new insight into the concept of "Foundation". What is foundation? Academically speaking it is the acquisition of the ability to use language effectively as the means of oral and written communication. Such acquisition alone can help one to commune with other minds that exist in the form of books. For, language is the tool of thinking, perception, judgement and expression. Without language the mind cannot develop. If, however, the goal of education is social as well, the "foundation" for the development of social consciousness ought to be more than language. Those which promote such consciousness are courses which help the learner to be conscientized towards involvement in local studies which are contextual. These may take the form of survey or field studies, or camps or living-out experiences or other strategies as well as subjects that go with such strategies. Unless this component is given its due place alongside the development of linguistic skills, other faculties of the learner cannot grow simultaneously along with those of the mind. Mental and social ability alone do not make a perfect man. Francis Bacon said, "true learning maketh a perfect man". In order to make a learner a perfect man his moral sensibility as well as his physique need soundness of growth. The former is cultivated by value education and the latter by games and sports.

Therefore, the courses which serve as foundation for a learner's educational development may fall under four components : Linguistic, academic, social or value-oriented or moral, and physical. All belong together as the base of an undergraduate curriculum. Insofar as a mentalist pursuit of knowledge goes better with more sophisticated tools and strategies of learning leading to in-depth specialisation, it may be brought under sharper focus at the postgraduate level. So far as the undergraduate programme is

concerned, it is sufficient only to involve the learner in effective mental training. The better part of his foundation lies in the development of his body, mind and heart along with that of the head.

The apex on the foundation will of course deal with the so called "core" courses and "diversified" courses. While the former is unidisciplinary, the latter is inter-, intra- and multi-disciplinary. By such a modification of the core of the curriculum, the learner becomes conversant with one discipline to begin with but he is also exposed to others in order to diversify his awareness as well as application. By such means a learner is given more windows of option for his further educational development than the only window which a unidisciplinary curriculum will otherwise give. The benefit of such diversification is far better than mere job-orientation. It may offer additional knowledge, widening of one's awareness, new avenues of interests—all in addition to training for a chosen career.

By now we have noticed how the bipartite structure is inadequate to impart education that satisfies the whole personality of the learner. Before we pass on to look at a model of the restructuration of the undergraduate curriculum in the light of the above discussion, I shall briefly comment on and pass over the traditional structure of undergraduate courses hitherto followed in colleges and universities.

Traditional Courses Structure

Many colleges have an arbitrarily set tripartite structure of courses : Part I Language; Part II Language and Part III Major. These loosely fall under the bipartite structure of the Foundation-and-Course curriculum. The mentalist-oriented core sits predominantly over the singular foundation of the linguistic development of the learner. With such a curriculum it would be wellnigh impossible to turn out an educated person. We may at best succeed in producing graduates whose lopsided development may not fit them for challenging careers which require the whole man to come into play. It seems reasonable, therefore, to say that it has outlived its time and we ought to seek less naive and more deliberately planned courses structure.

A Model

The foregoing discussion may be presented concretely in the form of a geometrical model :

The base of this pyramidal structure is the *foundation* which takes care of the *overall preparation* of the learner for a concentration on the ultimate pursuit of knowledge within a chosen discipline. Com-

munication, thought development, moral disposition and physical condition are all taken care of. The pyramidal apex spires into strength (a tower is normally a symbol of strength in literary studies) with the processes of learning progressing towards an independent mastery of knowledge. These processes are helped by an exposure to contents and methodologies of other disciplines—an exposure facilitated by the offering of diverse inter-, intra- and multi-disciplinary courses. They offer different tools of analyses and of comparison, new insights, association of ideas and new working knowledge and experience. Through these courses the learner is able to peep through other windows of the citadel of learning simultaneously when he enters through the door of one room of knowledge.

Against this three-dimensional pyramidal model of the curriculum the conventional bipartite model stands impoverished. We have only to take a cursory look at the simulation of it to understand the truth :

—CORE

LANGUAGE (FOUNDATION)

On a slender foundation we seek to build a pillar, not an edifice. Such a bare structure cannot stand the turbulence of this complex world which makes a heavy demand on the young graduate who emerges from his ivory tower with nothing but the sole weapon of unidirectionally oriented mind.

The present model, in my judgement, therefore, promises an education that is more sound and durable than that provided by earlier models. Certainly it is far better than the oldest conventional model which comprises three arbitrarily posited disparate parts which do not have any inter-connection whatsoever.

The Model in Practice

Neat as the model may seem, the actual translation of it into practice is not easy. However, it is not impossible as it has been found working to our satisfaction in some good autonomous colleges in our State.

Foundation Courses, as we all know, prepare the learner for a greater task and they should therefore chronologically come before the core courses. They

are, moreover, Servant or Support Courses. As such they ought to be placed earlier in the curriculum. The first and the second years may be devoted to them. Some of the foundation courses which (as we understand) are integral parts of the curriculum are unfortunately kept at the periphery of our conventional curriculum. These ought to be included in the curriculum and treated as credit-worthy.

The Foundation Courses fall under four categories: F_1 are language studies; F_2 are academic support courses which now go in the name of ancillaries or auxiliaries; F_3 are value oriented programmes and F_4 are physical training courses. These may be accommodated in the first two years of the undergraduate programme. All of them ought to carry almost equal credits and be lodged within the evaluation structure. Value orientation courses may be accommodated in the second year while core and diversified courses will be increasingly concentrated at the terminal point. The rationale behind this is a cline consisting of preparation, consolidation and assimilation—a cline that involves the physical, moral and intellectual abilities of the learner. Of the sixteen courses usually offered through an undergraduate programme eight may be devoted to the Core and the rest equally distributed among the Foundation and Diversified components of the curriculum.

Course Content

Structuring of courses alone may not ensure success; the course content ought to contribute to the social and academic goals on the one hand and make the structure easy to operate on the other. The former depends on the careful selection of course materials and the latter is accomplished by controlling level and quantum. Let us briefly review the content:

I(a) Foundation Language/Literature Courses

The pursuit of linguistic study in the undergraduate curriculum has the specific object of helping the learner to acquire competence in the use of language and in the profession of literature. The earlier stages will concentrate on the imparting of basic communication skills and the later stages may lead to creativity in literary practice as well as mastery of the spoken language. Therefore the earlier course content will be based on the practice of language skills such as comprehension and composition skills. Skills of the spoken language ought also to be effectively imparted. These basic linguistic/literary courses will therefore include such content as may be found in simple texts based on dialogues, narratives,

newspaper reports, reviews of films and plays, commentaries on sports and games and such other pieces. It is in the exploitation of these texts through appropriate pedagogy (which can maximise student participation) that the learner's mastery of linguistic skills becomes effective. Streaming of students is recommended provided the sense of discrimination in the mind of the learner is obliterated by offering a common examination to all at the end.

The later language/literature courses ought to lead up to a higher degree of excellence and mastery in the use of language. Creative writing, involvement in public speaking and debate, seminar presentation, lecture practice and others may gain precedence over mere reading of set texts at this stage. During the second year of the undergraduate course language teaching ought to take off towards competence and creativity. Such a foundation will make the mastery of the core discipline easy and enjoyable.

(b) Foundation Academic Support Courses

These are not far different from what are usually called ancillaries. These directly bear upon the Core Courses and are therefore not "ancillaries". They would be in the nature of outlines or introductions to the subjects included in the Core. However, these ought to aim at imparting skills of approach to the major discipline. It is not just enough, for example, to have a course on History of Literature and another on English Prosody in the English Literature curriculum. The courses will be made so application oriented as to help the learner recognize at once the pattern of metrics and other conventions when he is presented with an unknown piece of English poetry. Perhaps such proficiency will be in evidence later in the course but the approach must be made with such a literary awareness. Application is the hall mark of any course under this category.

(c) Foundation Value Education Courses

These seek to create social awareness through value education. Some colleges offer an obligatory course in Social Ethics. It seeks to highlight several social problems of our country. The programme is administered through a series of well organised classroom discussions supplemented by a weekly general lecture by someone well known and currently connected with a social situation. Such an address is usually followed by searching questions asked by students. The success of the course also depends upon the high motivation students evince in several projects made on the basis of field work done in the neighbourhood. (These include such topics as social

problems of servant maids, Brand loyalty of consumers, Literacy and Mess servants, Folk art in Tambaram, Income-expenditure structure of College Farm Workers, interviews with film actors and politicians, etc.). These courses may also include field studies involving off-campus experience of living-out in villages over weekends. A number of other courses which bear upon themes such as Gandhian thought, National integration, etc. may come under this category. As the emphasis in these courses will be awareness building the pedagogy ought to be appropriate to such a purpose.

(d) *Foundation Physical Training Courses*

This part of the curriculum is often ignored or left to imperfect core. When the body is sound, the mind has congenial soil to grow. One of the alternative courses in this component (NSS, NCC, Sports, and Games, CSS) ought to be made obligatory in the first year with the learner required to put in 120 hours through the first year. The training must be planned and organised well to provide for actual physical training on the field, be it bodily drill or manual labour. One cannot belittle the importance of one's physical soundness: the emphasis of many an ancient society and some modern nations on martial arts and conscription in the educational curricula of such societies has proved to be beneficial. Some modern societies have not questioned the wisdom of such an arrangement. While our ethos cannot permit such extreme measures, the principles behind them cannot be ignored as they seek to promote physical fitness.

II. *Core Courses*

Core courses are often undisciplinary and aim at specialisation. Specialisation by itself, in the true sense of the term, lies outside the undergraduate curriculum. In these days of rapid advancement of knowledge the attempt to be in the centre of current knowledge in any chosen discipline is wrought with difficulty. A mass of information has to be acquired; methodologies have to be mastered; the way to the current scene lies through assimilation of surrounding knowledge. This does not mean that the undergraduate has to be at the periphery of his discipline. Certainly the courses that constitute the core ought to be advanced enough to help the student with initiative to make an independent inquiry with ease. Reduction of quality and depth by too much diversification in the core may result in the disappearance of the core, namely, the solid mental centre of the learner. For this reason the triple major arrangement is not helpful. It tends to lower achievement

within a single discipline. Diversification is of course, necessary but not at the expense of the core itself. The utility of the core courses to an undergraduate depends on how well these courses lead to self-mastery of knowledge. This of course, in turn depends on the content as well as the method of pedagogy.

III. *Diversified Courses*

Diversification of curriculum aims at two things: (a) broader exposure to different branches of knowledge, (b) application of knowledge to real life. Together these two aims contribute to place the core in perspective and bring it into relief by comparative and contrastive experience through other disciplines. In some colleges students of arts are compelled to do one or two courses in Science and vice-versa. The refreshing diversion which this arrangement brings often effectively develops a range of different skills in the learners. Such diversification is refreshingly helpful to promote varied skills but at the same time prevents a distraction from one's concentration on the core studies. A science student, for example, may learn how to date an inscription or to speak another language or to understand the political machinery of India or do a course in religious doctrine without seriously sacrificing his attention to the study of his core subject. Such a liberalisation of the curriculum is a healthy strategy to prevent one from being fossilized in a single ivory tower.

The Infrastructure

Restructuration of courses will yield no results unless an autonomous college has an adequate infrastructure to enable learners benefit from the restructured curriculum. In the first place the staff ought to be highly qualified, resourceful and imaginative. Updating, revision and replacement of courses from time to time will otherwise be unproductive and superficial. For this reason research ought to be encouraged. In addition, extension services, auxiliary services such as continuing education courses which are relevant to context and need, arrangements to interact with and draw benefits from neighbouring industries and institutions, opportunities to do field work and a number of other on and off campus services constitute the vital base of the curricula of an autonomous college.

Methodology

If the restructuring of courses has to bear the results we hope for, then the teaching methodology cannot remain conventional. The lecture, still remains a major method of imparting knowledge

especially in undergraduate teaching. However, a lecture ought to make room for interaction. Other methods have been found to be very useful.

Case Study through Discussion: This has been found to work well in value education programmes. A case, real or simulated, is presented through the first ten minutes of a class hour and this is followed by a general discussion by the class which is effectively monitored by the teacher. The issue discussed becomes complex and perspectives of evaluation of the case are well presented and summed up in the end by the teacher.

Lecture and Interaction: An outside speaker is often invited to meet a general assembly of students in a large hall. His speech is followed by questions and answers.

Seminar: This is most fruitfully followed through the semester in the teaching of core subjects. Each student in the class gets a turn or two to present his work on topics prepared in consultation with guides. On the day of defence three evaluators evaluate the work on the basis of a score sheet which establishes credits on the basis of (a) content, (b) presentation, and (c) communication. Appropriate skills are identified and assessed. Under "presentation", for instance, behavioural skills such as readiness to face questions, precision in answers, evoking audience participation, illustration accompanied by associative literary reminiscences and easiness of mood are looked for and assessed.

Other Methods: Language classrooms have witnessed successful group dynamics including 'buzz groups' (which let the whole class consult in whispers for points to be put up on board for a composition), 'fish bowl' (two of the students of a given class or more carry on a prepared dialogue on a given topic and this is followed by comments on what has been presented by the other members of the class), 'brainstorming' (confusing students in order to re-establish clarity), role play, skit and such other methods that may suit the purpose.

It is in the choice of the methods to suit the purpose on hand that we hit upon the happy idea of appropriate pedagogy in the sense in which we talk of appropriate technology. Where method and purpose do not match, little learning takes place.

Constraints

The foregoing may be looked upon as a success story by some but it is not. It only represents our aspirations being realized through the responsible and thoughtful utilisation of human and material resources available to us. We have several constraints

some of which threaten the very foundations of autonomy.

(a) Constraints of University Control

These are far from being complimentary. The 'creative association with the university' envisaged by the policy makers on autonomy is still a distant dream. The relationship with the university remains essentially one of control exercised unimaginatively on the basis of outmoded statutes interpreted by clerks whose vision is often blinkered by procedures, sometimes impossible procedures. The major hurdle the university has placed in our way is the restriction regarding grant of a affiliation to new courses. At the moment we cannot offer more than one new course during a year in our State. There are several new courses we ought to start in order to make full utilization of the human and material resources available at a college but we are not allowed to do so. University involvement in terms of creative participation is often restricted to mere appointments made for membership in various bodies of autonomous colleges. The appointees are often known for not keeping their appointments (in more than one sense of the term). One hesitates to mention any major contribution made by them, for there does not seem to be any.

(b) Constraints of State Control

The State Government often runs rough shod over autonomous private colleges partly because of the lack of imagination on the part of the administrators. Autonomous colleges and other colleges are not discriminated for the purpose of granting additional facilities to autonomous colleges in the interest of efficiency and more effective educational service. On the other hand affiliation to courses is blocked, control is tightened, frameworks of the syllabi are dictated, and the concept of autonomy itself is not favoured. And this happens inspite of the repeated commendation by various review commissions of the good work of autonomous colleges within the State. The government is conscious that it is the pay master and does not hesitate to treat colleges as their servants. The so called 'creative association' with either the university or the government still remains a distant dream.

Conclusion

Constraints notwithstanding, autonomy is a welcome idea. If the relation between the autonomous college on the one hand and the state and the university on the other is one of "creative association" and if the government is generous in grants, autonomous colleges will bring about a sea change upon our educational scene. Nothing else can remedy the ills of higher education in our country.

UNIVERSITY AND LAW COURTS

T.K. Tope*

I

Powers of the Vice-Chancellor

University Acts provide for powers of the Executive Council and delegation of its power to Vice-Chancellors. An important question arose as regards the extent of such delegation. The Supreme Court laid down, "When an Act prescribes a particular body to exercise a power, it must be exercised only by that body. It cannot be exercised by others unless it is delegated and the law must have provided for such delegation."

The Court interpreted Section 11(6)(a) of the Marathwada University Act which empowers the Vice-Chancellor 'to regulate the work and conduct of officers'. The Supreme Court laid down that this power does not include the power to remove an officer of the University. The decision to remove an officer must be taken by the Executive Council. If the Executive Council delegates such power to the Vice-Chancellor, the approval of the Chancellor to such delegation is mandatory under the University Act. If such approval is not received, the mere resolution of the Executive Council does not confer any power. If the Vice-Chancellor removes an officer of the University without obtaining the approval to the resolution of the Executive Council from the Chancellor and even if the action of the Vice-Chancellor is subsequently ratified by the Executive Council still the action is illegal and the removal of the officer is invalid. For the action of removal of the officer by the Vice-Chancellor was *ab-initio* void and hence cannot be ratified.

(*Marathwada University v. Sheshrao Balvant Rao Chavan*, AIR 1989 SC 1582 (1989) 3 SCC p. 132)

(Note : Following important principles are laid down in this judgment :

- (1) There must be a provision in the Act for delegation of the power by the Executive Council to Vice-Chancellor.
- (2) Such delegation must be approved by the

Chancellor, otherwise the resolution delegating the power is void.

- (3) If the Vice-Chancellor in absence of the approval by the Chancellor, acts on the resolution of the Executive Council delegating him the power, the action of Vice-Chancellor is void.
- (4) As such action is void, *ab-initio*, it cannot be ratified, even if the Executive Council subsequently ratifies the action.
- (5) Void act of delegate cannot be cured by ratification of the delegant.
- (6) Ratification cannot cure an ultra vires action.

It is recommended that all Vice-Chancellors and members of the Executive Council of universities should study this judgment carefully and follow it.

II

Service Conditions

An important decision of the Supreme Court relating to remedies available to teachers against the college authorities even if the college is run by a public trust deserves to be noted. The Supreme Court laid down that a writ of mandamus under Art 226 can be issued by High Court to a College run by a public trust for enforcement of positive obligation cast on to body or authority, even if such body or authority is not created by an Act of legislature.

(*Shri Anand Mukta Sadguru v. V.R. Redani*, AIR 1989 SC 1607)

However it must also be noted that High Courts ordinarily insist on resorting to other remedies available under the University Acts before filing a writ petition.

* * *

If the services of an employee who was appointed on ad hoc basis are to be terminated on the grounds of defects in his work and deficiency in the performance, it is necessary to communicate him the defects in advance if his services are to be terminated.

(*Sumati v. Union of India*, AIR 1989 SC 1471)

Note : It must be noted that in this case the services were continued from time to time and the

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confidential records of the employee contained the mentioned defects. In the records, it was mentioned that the continuation of service was not recommended because of the defects recorded. Hence, the Supreme Court rightly struck down the order of termination. However, if an employee is appointed purely on a temporary basis for a fixed period and the termination of service is a result of the expiry of the period, there is no need to give notice to such an employee.

The management has a right to transfer an employee in a particular cadre of transferable posts from one place to another. This is an incidence and condition of service. When such an employee is transferred, he must comply with the order. He has also a right to make a representation to the competent authority for stay, modification or cancellation of transfer order. But if such a transfer order is not stayed or modified or cancelled, the employee has no justification to avoid or evade the transfer order merely on the ground of having made a representation or even on the ground of difficulty in moving from one place to another.

In this case, the regulations provided that if the employee is found to be absent from duty without leave or overstayed the period of sanctioned leave and if he failed to join his duties even after a warning, he may be discharged summarily. The warning issued is sufficient to constitute compliance with the principles of natural justice.

In this case the Court also laid down that if a registered letter is returned by the postal authorities, with an endorsement that the addressee refused to accept the same, there is presumption of service of the letter. However, such a presumption is rebuttable.

(Gujarat Electricity Board v. Atmaram (1989) 2 SCC p. 602)

Note : Management of public institutions should note this case, for the purpose of making rules for transfer of an employee and also for creating transferable cadre posts.

Suspension of an Employee and Subsistence Allowance

The Supreme Court laid down that the amount of subsistence allowance payable to the Government servant on his suspension should be reviewed from

time to time. Where the proceedings drag on for a long time, even though there may be no express rule insisting on such review.

(P.L. Shah v. Union of India, AIR 1989 SC 985)

Teachers whose services are terminated by private management running an aided college affiliated to a University find it difficult to recover from the management, the amount of terminal benefits and arrears of salary payable to them. If such teachers file a civil suit the litigation might drag on for years. The Supreme Court of India laid down in such cases, the teachers can file a writ of mandamus against the management for the recovery of terminal benefits and arrears of salary.

The Court, however, laid down that such a writ, however, cannot be entertained for specific performance of contractual service or declaration for continuance in service.

(Anandi Mukta S.S.M. v S.S. J. M.S Trust v. V.R. Rodani (1989) 2 SCC p. 691)

Note : It is a very important judgment from the point of view of teachers. It gives them an effective and a quick remedy against an obstinate management for recovery of the amount of terminal benefits and arrears of salary. If the High Court issues the writ, the payment will be made immediately. If it is not made the teacher may move the High Court for contempt of court. Moreover against such a judgment of the High Court the Supreme Court may not entertain an appeal. Hence such a judgment will be final and binding. However it must be noted that the Supreme Court made it clear that such a writ may not be issued for specific performance of contractual service or declaration for continuance in service. Such relief can be obtained by recourse to other legal remedies provided by ordinary law.

III

Examinations

LL.B. Part I Examinations of Jiwaji University, Gwalior was cancelled partially in respect of only those candidates who boycotted the first paper. This action of the University was upheld by the M.P. High Court. The Court also laid down that before cancelling such examination it is not necessary to give a

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hearing to those candidates whose examination was cancelled.

In the same case the High Court also upheld the decision of the University in declaring a lady student to have passed the examination even when her answer book was lost when it was in the custody of the Centre Superintendent, because the lady student appeared for the examination inspite of the mob violence of the candidates who boycotted the examination.

(Rashmi Bala v. Jiwaji University, Gwalior, AIR 1989 M.P. 181)

Revaluation of answer papers is not a fundamental right. Hence a candidate cannot insist upon a particular method of revaluation.

(B. Rajappa v. Additional Controller of Examination, Madras University, AIR 1989 Mad 242)

A candidate who was charged with the use of unfair means at University examination was exonerated of the charge. However, the Executive Council reversed the decision without giving notice of incriminating material used by the candidate. As the Executive Council failed to follow principles of natural justice, its decision was quashed by the High Court.

(Prashanta Kumar v. Council of Secondary Education, AIR 1989 Orissa 179)

Examining authorities are authorised to cancel examination if mass copying and malpractices at examination are found. The authorities are not required to give an opportunity to individual examinees for being heard.

(Chandan v. Council of Higher Secondary Education, AIR 1989 Orissa 125)

Declaration of Results

University of Gulbarga provided for revaluation and retotalling of answer papers. When a candidate who was declared to have failed at the examination, requested for revaluation, no reply was sent to him. He filed a writ petition. In the Court the counsel for the University submitted that the relevant answer papers were not available with the University. In an affidavit submitted to the Court subsequently, it was disclosed that the answer papers had been disposed

off to a paper mill for the purpose of pulp. The Court drew adverse inference and directed the University to announce the result of the candidate to have passed in the relevant papers.

Note: The Court passed strictures against the University for its non-cooperation with the Court in disposing of the writ petitions.

(S A Jaffar v. University of Gulbarga, AIR 1989 Kant. 174)

Withdrawal of a Degree

A Bank employee at Dharwad enrolled himself in Udupi Law College which is 400 km away from Dharwad. He did not obtain study leave from the Bank. He appeared for the examination and was declared successful and he got Law degree. When a complaint was made to the University that the candidate did not keep minimum attendance as required by University rules, a notice was issued to the Bank employee asking him to show reasons why his degree should not be withdrawn. His replies were evasive. Hence the University withdrew the degree. The Bank employee moved the Karnataka High Court for a writ. The High Court rightly dismissed the writ and upheld the action of the University.

(Haradi Raghavendra Pai v. University of Mysore, Mysore, AIR 1989 Kant. 176).

Note: The Mysore University authorities deserve to be congratulated for the bold actions. Attendance in various law colleges in the contrary is very depressing. Very few students attend classes if the teachers are present. It is hoped that all Universities in India would be as bold as the Mysore University. It is only then that attendance in Law Colleges will improve and with it the standard of legal profession and the judiciary also.

IV

Law Degree and Enrolment as Advocate

Some universities provide for a LL. B (General) or (academic) degree in the Law Course after first two years and after completing the third year successfully, the candidate gets LL.B. (Professional) degree. The Bar Council rule lays down that a candidate must pass the LL B examination as an internal student for qualifying for enrolment. A candidate passed the LL.B. (academic) degree as external and in the third

year he joined a college and secured the LL.B. (degree) professional. Bar Council refused to enrol him as an advocate on the ground that he was not an internal student for all the three years of Law course. The Supreme Court upheld the action of the Bar Council.

(*Baldev Raj Sharma v. Bar Council of India*, AIR 1989 SC 1541)

V

Medical Admissions

Rules framed by the authorities provided for collegewise institutional preference for medical admission for postgraduate courses. This rule was declared as violative of Art 14 and the rule was struck down.

(*Greater Bombay Municipal Corporation v. Thukral Anjali*, AIR 1989 SC 1194)

See also *Nirmal Kumar v. State of Haryana*, AIR 1989 P.H. 211 (This is also a case referring to post-graduate admission to medical colleges).

The University of Delhi has a rule under which for admission to a medical college within the jurisdiction of the University required the candidate to have schooling at least for two years in a school in Delhi. A candidate could not satisfy this condition as her parent was transferred to a foreign country. The Supreme Court held that this condition for schooling for at least two years in a school in Delhi is unreasonable vis-a-vis such a candidate.

(*Meenakshi v. University of Delhi*, AIR 1989 SC 1568)

VI

Minority Institutions

State aided minority institution cannot reserve seats for students of minority community. For, such reservation would violate provisions of Art 29(2) apart from the fact that they would be inconsistent with the provisions of Art 14 i.e. equality rule.

(*Sheetansu Shrivastava v. Principal Agricultural Institute, Naini*, AIR 1989 All. 117)

A claim was made on behalf of Anjuman-Islahul Muslameen Santhal Paragana that it was a minority institution and hence a particular communication from State Government was not applicable to it. The Patna High Court held on the strength of evidence that

the institution was never established by members of minority community.

(*Md. Nisar Ahmad Kaifi v. State*, AIR 1989 Pat. 252)

Students of Colleges established without prior permission of the State Government and not recognised by Government will not be allowed to appear for examination, if the regulations provided that only students of recognised institutions will be allowed to appear for examination. In this case a plea was made that as the college was a minority institution, it was not bound by the regulations. The plea was rejected by the Patna High Court.

(*Managing Committee M.A.K.A.P.T. Education College v. State*, AIR 1989 Pat 249)

VII

Compulsory Study of a Language

Karnatak Government issued an order prescribing Kannada as the sole first language at Secondary School level. The order also directed that teaching of Kannada is compulsory from first year of primary school in non-Kannada schools. The Karnatak High Court expressed an opinion that this order is violative of the rights guaranteed under Art 14 (right to equality) and under Arts 29 and 30.

(*General Secretary L.M.P. Committee v. State*, AIR 1989 Kant. 226 (F.B.))

VIII

B. Ed. Colleges

There was a sudden growth in the number of unauthorised B.Ed. colleges in Maharashtra. A number of such colleges cropped up in the area of Nagpur University in 1986-87. Students took admission in these colleges in the said academic year although the Nagpur University had black-listed these colleges and warned the students accordingly. It was made clear that such students would not be entitled to appear for B.Ed. examination in 1987 of the University. Such students started agitation. Government yielding to agitation, requested the Nagpur University that 535 students as per enclosed list should be allowed to appear for the examination. The University agreed to examine such students on the conditions that they should be required to undergo a regular course of studies for which provision was made for teaching

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facilities in various unauthorised colleges, etc. Thereupon Government requested the University to allow more students to appear for the B.Ed. examination. The University refused. Such students, filed a writ petition. The Nagpur Bench of the Bombay High Court rightly dismissed the petition.

(*M.D. Nasir Khan v. State*, AIR 1989
Bombay 197)

Note : (1) The original judgment deserves to be read in its entirety. It shows the sad condition of higher education and Government's willingness to surrender to the pressure of the students and thus be a party to the lowering of the standards. What is true of Maharashtra might be true of other parts of India.

(2) Considering the mad rush for admission to B.Ed. colleges, it is suggested that open university should arrange for instruction in

B.Ed. Courses. The corruption to which the students are required to yield to get admission will be stopped. The society expects teachers to be men of ideal moral character. When the teachers are required to submit to corruption to get B.Ed. degree, how one can expect them to uphold moral standards.

(3) What is true of B.Ed. colleges is true of Engineering and Medical colleges. It is necessary to pass a law prohibiting starting of a college in these faculties without getting affiliation to the University. Even advertising for such a college should be an offence, punishable with a minimum sentence of imprisonment for ten years. If we are really serious in improving our public life and raising the standard of education drastic remedies must be resorted to—otherwise we must acknowledge that we are hypocrits. ☐

M.B.A. PROGRAMME SUKHADIA UNIVERSITY: UDAIPUR UDAIPUR

ADMISSION NOTICE 1990-91

Applications are invited for admission to M.B.A. (full time two year regular programme) for the session 1990-91. Prospectus and application forms can be obtained from the Office of the Director, M.B.A. Programme, College of Commerce & Management Studies, Sukhadia University, Udaipur on payment of Rs. 25/- in cash at counter or if required by registered book post by remitting Rs. 32/- by a crossed Bank Draft only in favour of the Director, M.B.A. Programme, Udaipur. Forms will be available from November 6, 1989.

Eligibility : Candidates possessing Bachelor Degree in any discipline from a recognised University with 50% marks (45% for SC/ST) in the aggregate are eligible. Those appearing at the final year examination of a Bachelor's Degree Course in March-May 1990 are also allowed to appear at the entrance test provisionally.

Last Date for submission of applications	—	January 15, 1990.
Proposed Date for Entrance Test	—	February 18, 1990.

Test Centres—Udaipur, Jaipur, Delhi, Indore, Hyderabad, Bangalore, Varanasi and Pune (if sufficient number of candidates apply for the centre).

A.K. Singh
DIRECTOR

HIGHER EDUCATION IN INDIA

P.V. Bhaskaran Nair*

Introduction

Expenditure incurred on education has been recognized by economists for quite some time as an investment in the form of human capital which helps the development of the national productivity, both of individuals and of society as a whole. Indeed, this realization of the role of education in the economic development dates back to the time of classical economists. It is well known that Adam Smith regarded education as "the acquired and useful abilities of all inhabitants or members of society".¹ Emphasizing the importance of education "as a national investment", Alfred Marshall expressed the view that "the most valuable of all capital is that invested in human beings".² Education, Malthus foresaw, would contribute to population control, and by reducing the numbers in labour force, help to maintain or even raise national income.³ To Walsh, the expenditure incurred by individuals seeking education for professional careers was a capital investment, made in a profit seeking and equalizing market, in response to the same motives that led to investments in conventional capital.⁴

The relation between higher education and economic development has received even more attention in recent years. Schultz⁵ observes that in the United States of America during the period from 1900 to 1956 the expenditure on education has increased about three and a half times relative to consumer income and relative to gross formation of physical capital. The studies conducted by Schultz were so insightful that they inaugurated a new era in Economics. In India, Nalla Gounden⁶ and Panchamukhi⁷ estimated the investment in human capital during the decade 1950-51 to 1960-61 using different methods and arrived at different estimates. Rao⁸ held the view that education helps to build the individual's productive capacity and his ability to take his due place in the army of workers who have to fight the battle for economic growth. Blaug⁹ demonstrated that people with more education earn a higher income compared with people with less education. On this basis, he argues that costs

incurred by individuals in acquiring more education constitute an investment in their own future earning capacity. He strongly believed that "investment in education accelerates economic growth".¹⁰ Saraf¹¹ has argued that higher education in India has been instrumental in economic growth and investment in higher education has yielded considerable dividends. The National Policy on Education has also highlighted the point that higher education provides people with an opportunity to reflect on the critical, social, economic, cultural, moral and spiritual issues facing humanity and that it contributes to national development through dissemination of specialized knowledge and skills.¹²

An Overview

Immediately after independence there was unprecedented linear expansion of higher education in the country. In view of the then prevailing conditions it was felt that expansion of education, even in purely quantitative terms, would lead to an accelerated growth of national economy. Consequently there took place a spectacular growth in the tertiary sector of education. In the initial phase of development, qualitative improvements so essential for the proper growth of education were neglected to some extent. Instead, an unplanned proliferation of universities and colleges took place. The universities were also not able to withstand pressures for admission and adopted an open-door policy. This had to some extent an adverse impact on the standards of teaching, research and examinations as also the tone and tenor of discipline.

The growth of students, colleges and universities from 1947-48 to 1987-88 could be seen from Table 1 (given on next page).

At the time we achieved independence the number of students pursuing higher education was only 265,917. In 1950-51, i.e. before the commencement of the First Five Year Plan, the enrolment was 396,745 which increased to 3,681,870 by 1987-88. The average growth rate works out to 6.9% during the period of 40 years.

There was also a remarkable increase in the number of colleges. In 1947-48 there were only 400 colleges which went up to 6,040 in 1987-88. The average growth rate works out to 7.2%. Correspond-

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TABLE 1
Growth of Intolment, Colleges and Universities

Years	Students	Number of	
		Colleges	Universities
1947-48 ¹	265,917	400	19
1950-51 ²	396,745	695	27
1960-61 ³	1,034,934	1,542	45
1970-71 ²	3,112,404	3,604	105
1980-81 ²	2,752,437	4,722	123
1984-85 ³	3,538,980	5,482	140
1987-88 ⁴	3,681,870	6,040	155

Source : (1) D.K. Ghosh, *University System in India*, Rahul Publications, Jabalpur, 1983, pp. 54-55.
 (2) S.N. Saraf, "Higher Education and Five Year Plans: Policies, Plans and Perspectives", *University News*, Association of Indian Universities, New Delhi (1-2-1985), p. 2.
 (3) University Grants Commission, *Report for the Year 1984-85*, New Delhi, p. 2.
 (4) V.P. Garh, "Development of Higher Education; Issues Related to Development", *University News*, Association of Indian Universities, New Delhi (20-12-1981), p. 6.

ing to the increase in the number of colleges, there was remarkable rise in the number of universities as well. In 1947-48 we had only a limited number of universities, i.e. 19 which increased to 155 in 1987-88, registering an annual average growth rate of 5.5%. There was enormous increase in the number of teachers also. The number of teachers in the universities and colleges was 193,341 in 1980-81 which increased to 225,405 in 1984-85.¹³ By 1987-88 there were 2.34 lakh teachers.

With the rapid growth in the number of students, teachers, colleges and universities, the Govt. of India had to find resources for meeting the mounting financial requirements of education which caused heavy financial strain on the Central Govt. The outlay on education during the plan periods is presented in Table 2.

It may be seen from the Table that the total Plan outlay increased from Rs. 2,069 crores in the First Plan to Rs. 97,500 crores in the Sixth Plan. Whereas the outlay on education rose from Rs. 152 crores (First Plan) to Rs. 2,525 crores (Sixth Plan), the outlay on higher education went up from Rs. 13.7 crores (First Plan) to Rs. 486 crores (Sixth Plan). The proportion of outlay on higher education to total outlay increased steadily from 0.66 per cent in the First Plan to 1.15 per cent in the Fourth Plan, but thereafter it declined steeply to 0.5 per cent in the Sixth Plan. The proportion of outlay on higher education to outlay on education increased from 9.01 per cent in the First Plan to 22.3 per cent in the Fourth Plan but declined to 19.26 per cent in the Sixth Plan. This decline is primarily because of the priority given to elementary education which has been included as part of the 'Minimum Needs Programme' of the Govt. of India.

The Problems

The system of higher education in India has often come in for critical comments from people representing different shades of public opinion and belonging to diverse professional groups. Ashby described the university system that India inherited from the British rulers as "a massive, invalid, unable to

TABLE 2
Plan Outlay on Education in India

(Rupees in crores)

Plan	Total Plan Outlay	Outlay on Education	Outlay on Higher Education	Percentage of col. 2 to col. 4	Percentage of col. 4 to col. 3
1	2	3	4	5	6
I	2,069	152	13.70	0.66	9.01
II	4,600	250	45.39	0.99	18.16
III	7,500	497	73.50	0.98	14.79
IV	15,902	823	183.50	1.15	22.30
V	53,401	1,726	337.00	0.63	19.52
VI	97,500	2,524	486.00	0.50	19.26

Source : D.K. Ghosh (1973), p. 76.

respond to any simple treatment."¹⁴ Various committees and commissions appointed by the Govt. of India and State Govts. from time to time have also expressed opinions which, by no stretch of imagination, can be construed as very flattering to the university system.¹⁵ Problems in the field of higher education in India generally could be grouped under three categories: (1) problems of unplanned and rapid growth, (2) problems relating to finances of higher education, and (3) problems connected with costs and returns of higher education. All these problems have attracted the attention of researchers in the recent past.

First, the unprecedented aimless growth of higher education was condemned by Raj.¹⁶ According to him, the major cause of degradation of higher education in India is the rapid growth in the number of students. Mukerji¹⁷ joins hands with Raj to argue that the unprecedented increase in number in the colleges and universities during the post-independence period caused serious repercussions for the system as a whole. In this context, Mansukhani¹⁸ pleaded for selective admissions in the universities. Analysing critically the progress of higher education in India from 1951 to 1971, Kaul¹⁹ considered that higher education in India is in the grip of a crisis of conscience and that it is fast losing its credibility and its functional utility. Naik²⁰ in a similar context argued that "at the university stage the need to reduce the spiralling demands for higher education is far more urgent especially in view of the growing unemployment among the graduates".

That the Govt. of India is seized of the problems of higher education caused by the unplanned growth is evident in its recent document 'Challenge of Education—A Policy Perspective'. There is an open admittance of the problems of unplanned growth in this document. "Neither colleges nor even universities are started after due consideration of academic need. For long years, these go on absorbing scarce resources without attaining even the minimum standards laid down by the University Grants Commission."²¹

Secondly, the unprecedented and unplanned growth of higher education naturally not only affected the quality of education and created additional problems of unemployment, but also led to severe resource problems. Many have pointed out with discontent the enormous increase in expenditure on higher education during the post-independence period on ad hoc basis. The First Year Book of Education (1966)²² has well recognized the fact that financing

has been one of the most serious problems of higher education in India and one of the main obstacles to improvement. A study by Misra²³ on the problems of educational financing suggests that (i) the universities should meet their expenditure mainly from the receipts and endowments, (ii) the grant-in-aid rules should be periodically reviewed to suit the changing needs and conditions, and (iii) the wastage and ineffectiveness in educational expenditure should be avoided. Patel²⁴ pointed out that there was hardly any institution of higher learning which was in a satisfactory financial situation and said that it was very necessary that more funds should be made available to the institutions for their proper maintenance, development and research. Another study by Azad²⁵ pointed out that (1) the annual rate of growth of expenditure over the years under study (at constant prices) is the highest (11.9 per cent) in the case of higher education as compared to 8.3 per cent in the case of overall education and 3.3 per cent in the case of national income, (ii) as percentage of national income the increase in expenditure on higher education was larger than that on education as a whole, and (iii) the universities have been spending larger outlays on 'consumption', i.e. staff salaries, scholarships and conduct of examinations than on investment like buildings, equipment and libraries. He also commented on the undesirability of the multiplicity of financial organizations which provided funds for higher education and about the rigidity of the grant-in-aid codes in certain States.

Parikh,²⁶ who examined the problem of university finances, offered a few suggestions in the hope of breaking ground in dealing with it. He is of opinion that finance of universities and colleges is a relatively neglected field in the discussions of India's higher education. Padmanabhan²⁷ pleaded for strict control of expenditure and for efficient use of resources by applying suitable managerial techniques like planning, programming and budgeting system. Ghosh²⁸ strongly felt that the 'constant crisis' of the universities is the problem of finance. The problems of students and other functionaries in the university system may be acute at one time and may be less or even disappear at another time. But the inadequate finance always keeps the Vice-Chancellor and the Registrar obsessed with the fear of problems of today and tomorrow, which ultimately mar the progress of other important work of the university.

A series of studies on the finances of universities in India sponsored by the Indian Council of Social Science Research during the seventies have brought out some aspects of the finances of some selected

universities. These studies were followed by a few other individual studies also.

Thirdly, a few authors have tried to highlight the importance of costs and return aspects of higher education especially in the context of growing investment in this field amidst the widespread resource crisis in the economy. Nanjundappa,²⁹ for example, argued that there was growing gap between the cost of higher education and the fees charged and also that there is a severe mal-adjustment between the output of the university and the needs of the economy. Shukla³⁰ suggested that the difference between the cost per student and the tuition fees paid by him be treated as an educational loan on the student, which should be returned by him as early as possible after he starts earning. Many studies have been conducted since 1961 on the rates of return on education, the results of which vary widely. By and large, they provide evidence for the existence of substantial rate of return on education from the point of view of both individuals and the society.³¹

Conclusion

From the foregoing discussion, it is obvious that the unprecedented and unplanned growth of universities and colleges has resulted in enormous increase in expenditure which causes considerable strain on the national resources and has led to severe problems of financial support of university education. Studies and reports have attempted to highlight the problems of financing universities and the need for the proper and effective utilization of available resources. At the same time, the huge investments on university education call for some economic justification. This has led several researchers to examine the costs and benefits of university education in India. The results of such studies justify investment in higher education and research.³²

REFERENCES

1. Adam Smith, *An Enquiry into the Nature and Causes of Wealth of Nations*, Cannan Edition, Random House Inc., 1937, Book II, pp. 265-66.
2. Alfred Marshall, *Principles of Economics*, 8th Edition, Macmillan & Co. Ltd., London, 1930, p. 216.
3. M.J. Bowman, "The Human Investment Revolution in Economic Thought" in B.R. Cosin (ed.) *Education: Structure and Society*, Penguin Books, Batlimore, 1972, p. 45.
4. J.R. Walsh, "Capital Concept Applied to Man", *Quarterly Journal of Economics*, XLIX, Feb., 1935, pp. 255-285.
5. T.W. Schultz, "Investment in Human Capital", *The American Economic Review*, Vol. 51, No. 1, March, 1961, p. 3.
6. A.M. Nalla Gounden, "Investment in Education in India", *Journal of Human Resources*, Summer, 1967, pp. 347-358.
7. P.R. Panchamukhi in D.P. Chaudhri (ed.) *Economics of Education, Health and Welfare*, Delhi University Survey, University of Delhi, 1964.
8. V.K.R.V. Rao, *Education and Human Resources Development*, Allied Publishers Pvt. Ltd., New Delhi, 1966, p. 5.
9. Mark Blaug, *An Introduction to the Economics of Education*, Allen Lane, The Penguin Press, 1970, p. 1.
10. Ibid., p. 61.
11. S.N. Saraf, "Higher Education and Five Year Plans: Policies, Plans and Perspectives", *University News*, Association of Indian Universities, New Delhi (1-2-1985), p. 2.
12. Ministry of Human Resource Development, Govt. of India, "The Essence and Role of Education", *National Policy on Education*, New Delhi, May, 1986, p. 14.
13. University Grants Commission, *Report for the Year 1984-85*, New Delhi, Appendices X and XI.
14. Erik Ashby (in Association with Mary Anderson); *Universities, British, Indian, African—A Study in the Ecology of Higher Education*, Weldenfeld and Nicolson, London, 1966, quoted in J.L. Azad, *Financing of Higher Education in India*, Sterling Publishers Pvt. Ltd., New Delhi, 1975, p. 9.
15. Azad, p. 9.
16. K.N. Raj, *Crisis of Higher Education in India*, Publication Division, Govt. of India, New Delhi, 1972.
17. K. Mukerji, *Pressure of Numbers: Some Thoughts*, cited in C.M. Ramachandran, "A Study on Some Problems of Higher Education in Kerala with special reference to the Financing of Education during the period 1957-75", Ph.D. Thesis, Calicut University, 1979, p. 62.
18. G.S. Mansukhani (ed.) *Crisis in Indian Universities*, Oxford and IBH Publishing Co., New Delhi, 1972, p. 3.
19. J.N. Kaul, *Higher Education in India: Two Decades of Planned Drifts*, Indian Institute of Advanced Study, Simla, 1974, pp. 2-4.
20. J.P. Naik, *Policy and Performance in Indian Education (1947-74)* Dr. K.G. Saiyidain Memorial Trust, Jamianagar, New Delhi, 1975, pp. 15-16 and p. 31.
21. Ministry of Education, Govt. of India, *Challenge of Education—A Policy Perspective*, New Delhi, 1985, p. 47.
22. N.C.E.R.T. *The Indian Year Book of Education, A Review of Higher Education in India (1947-61)*, Revised Edition, 1968, p. 83.
23. A. Misra, *Educational Finance in India*, Asia Publishing House, Bombay, 1967.
24. C.S. Patel in H.M. Patel (ed.) *Issues on University Administration*, I.I.P.A., New Delhi, 1974, cited in C.M. Ramachandran, op. cit., p. 96.
25. J.L. Azad "A Critical Study of the Financing of Higher Education in India in the post-independence period, Ph. D. Thesis", Delhi University, 1972 and *Financing of Higher Education in India*, Sterling Publishers Pvt., Ltd., New Delhi, 1975.
26. G.D. Parikh, "University Finance: Problems and Procedures" in *Higher Learning in India*, pp. 78-88, cited in C.M. Ramachandran, op. cit., pp. 99-100.
27. C.B. Padmanabhan, "Financial Aspects of Indian Educational Administration with special reference to University Education", *Education Quarterly*, Ministry of Education, Govt. of India, New Delhi, April, 1977, pp. 5-8.
28. D.K. Ghosh, *University System in India*, Rahul Publications, Delhi, 1983, p. 344.
29. D.M. Nanjundappa, *Working of University Finances*, Sterling Publishers Pvt. Ltd., New Delhi, 1976.
30. P.D. Shukla, *Administration of Education in India*, Vikas Publishing House Pvt Ltd., New Delhi, 1983, pp. 181-182.
31. Roe, L. Johns et. al., *The Economics and Financing of Education*, Prentice Hall Inc, Englewood Cliffs, New Jersey, 1983, p. 49.
32. P.V. Bhaskaran Nair, "Finances, Costs and Returns of University Education in Kerala: A Study of Calicut University", Ph.D. Thesis, Calicut University, 1987, p. 296.

Seminar-cum-Workshop for College Principals

The Karnatak University, Dharwad, organized a three-day Seminar-cum-Workshop for the Principals of colleges to discuss the role of colleges and universities in higher learning vis-a-vis the new education policy.

Speaking at the inaugural function Dr. M.I. Savadatti, Vice-Chancellor, Mangalore University, said that at present the principals were required to be responsible to the management, the government, the staff, the guardians and the students in that order, while, on the other hand, their first responsibility and commitment should be towards their students and to the cause of education.

Dr. S. Settar, Professor, Department of History, Karnatak University, asked the principals to come forth with their thinking on the pros and cons and the feasibility of the proposed autonomous colleges in the Indian

That Prof. D. Eshwarappa, Director, Directorate of Collegiate Education, Government of Karnataka, assured all cooperation from his Department in redressing the grievances of teachers, principals and colleges. Dr. G.D. Sharma, Head, Department of Higher Education, National Institute of Educational Planning and Administration, New Delhi, called upon the principals to endeavour to increase the area of light and reduce the area of darkness in the field of education the prospects of which in India have become brighter in recent years.

Dr. G.K. Narayana Reddy, Vice-Chancellor, Karnatak University, who presided over both

the inaugural and valedictory functions, said that university was a collectivity of the Postgraduate Departments as well as the colleges and appealed to the principals to create an atmosphere of greater cooperation and collaboration between the university and the college to realise the goal of academic excellence.

Seminar on Development Administration

Chh. Shahu Central Institute of Business Education and Research, Kolhapur in collaboration with local chapter of Indian Institute of Public Administration, and Political Science Dept. of the Shivaji University, Kolhapur organised a two-day seminar on Development Administration in India as a part of Birth Centenary celebrations of Pandit Jawaharlal Nehru. The topics discussed at the seminar included Planning Process at the National, State and District level; Panchayati Raj Pattern of Administration; Management Inputs for Rural Development; Various Areas of District Administration; and Social Work for Development Administration.

The seminar was inaugurated by Dr. S.T. Sawant, Director, Indian Council of Social Science Research, Western Chapter, Bombay and presided over by Vice-Chancellor Dr. K.B. Powar. Dr. R. Bhardwaj, Director, Department of Economics, University of Bombay who delivered the valedictory address, stressed adoption of an inter-disciplinary approach to social science research to maintain inter-generational equity in the social process.

New PG Courses at SNDT Women's University

The SNDT Women's University, Bombay, has started Masters Degree in Computer Applications (M.C.A.) and M. Pharm (in Quality Assurance) from the current academic session. Its Department of Postgraduate Studies & Research in Home Science at Bombay has also introduced three new postgraduate diploma courses in Consumer Services; Sports Science and Nutrition; and Interior Space Design and Management.

The Postgraduate Department of Home Science in addition to regular Masters, M. Phil and Ph. D. Courses in five specialisations also offers postgraduate diploma courses in Food Service Management, Early Childhood Education, Computer Aided Textile Design, Hospital Administration and Dietetics.

Under the faculty of management, the University has started a Postgraduate Diploma in Management Studies in collaboration with the Institute of Marketing & Management.

ITRC Honours Three Scientists

Three top scientists of the country, Prof. A.S. Paintal, Director General, Indian Council of Medical Research, Dr. S. Vardarajan, former Director General, CSIR and Prof. B.K. Bachawat, Chairman of CSIR's Technology Advisory Board, have been honoured by the Industrial Toxicology Research Centre (ITRC) on the occasion of its silver jubilee. Each one was given a scroll of honour and a silver plaque. Prof. Paintal was also awarded a gold medal.

The foundation stone of a silver jubilee block of the ITRC, which will also house a laboratory, was also laid on the occasion.

Prof. Paintal was honoured for making significant contributions in the field of lung physiology. Accepting the honour Prof. Paintal said he hoped that the new space created will give scientists somewhat more room to work in a comfortable atmosphere, as the laboratory was the second home of a real scientist. He lauded the contributions of the ITRC, particularly during the recent past, both in basic and applied research. ITRC will have to play a major role in future, he said.

Prof. Bachawat has been deeply involved in the field of biochemistry and has made significant contributions to the field of neurobiology and study of mental retardation. For the past 15 years he has been doing liposome research, especially of the liposome encapsulated drug delivery system.

Receiving his award Prof. Bachawat said, it was important to have commitment to the cause of science in the field of experimental research. One has to take advantage of the available facilities and continue to work to reach one's goal. In the area of scientific pursuits, a scientist, according to him, has to come out of superstitions and dogmas and should be bold in experiments but cautious in his claim.

Dr. S. Varadarajan has distinguished himself for his original and outstanding contributions in the determination of the structure of nucleic acids and has devised new method of production of

C 14 (radioactive carbon) labelled deoxy-nucleotides utilising autotrophs.

Welcoming scientists, ITRC director P.K. Ray said the ITRC had developed some very important instruments and labs for use in villages, such as of water analysis kit for rural areas, mobile water analysis laboratory suitable for use even in the remotest part of the country, the Amrit Kumbha and bact-o-kill for providing bacteria free drinking water. He also highlighted the role of the organisation analysing water under the Ganga Action Plan. The Yamuna river monitoring and Hoogly river biomonitoring sponsored by the Department of Environment.

Move Safe '89

The Department of Civil Engg. of the University of Roorkee proposes to organise a national seminar on Motor Vehicle Act 1988 and Provisions for Road Safety (Move Safe '89) on December 23, 1989 at New Delhi. The Seminar aims to deliberate on various issues of the Road

Safety which are strictly provided for in the Act and their purposes. The aim will be to make an awareness to all quarters about the safety provisions and their relevance to modern day traffic. Also, strong recommendations are to be made to the government to build implementation machinery for the rules of the Act without relaxation in any form.

This seminar will be an ideal forum to deliberate for researchers, practising planners and engineers, officials of urban authorities, and concerned ministries, regular transport authorities, officials of traffic police departments and other public and private agencies connected with road and road traffic.

The topics proposed to be discussed at the seminar include (i) Safety Through Licensing and Traffic Control; and (ii) Control of Vehicles, Insurance and Authority of States and Centre.

Further details may be obtained from Dr. P.K. Sikdar, Organising Secretary, MOVE SAFE '89, Civil Engineering Department, University of Roorkee, Roorkee-247667.

News from Agril. Varsities

Symposium on Nitrogen Fixation

"In India very little work has been done in the field of Nitrogen Fixation by trees. Scientists are yet to identify the rhizobia associated with different trees species, cross infectivity, seasonal fluctuation in nodulation, extent and utilization of nitrogen fixation, transport of fixed nitrogen etc.", said Dr. B.P. Sane, Director, National Botanical Research Institute, Lucknow while inaugu-

rating the National Symposium on Centenary Celebrations of Biological Nitrogen Fixation held at the College of Basic Sciences of the Haryana Agricultural University (HAU) on 8.11.1989. He said that there was a need to provide better Rhizobium culture for the whole area of nitrogen fixation and nitrogen in trees in open and appealed to the funding agencies to provide liberal funds for

intensifying the research work being done in this field.

Highlighting the importance of the biological nitrogen fixation, Dr. Sane said that biological nitrogen fixation could bring down the cost of fertilizer, reduce the pollution and improve the fields of pulses. But we must not forget the fact that in a country like ours, where food production still needs to be improved we have to accept the intensive cultivation. This necessitates the use of adequate nitrogen and manure which automatically means that biological nitrogen fixation will be reduced since most organisms that fix nitrogen do so when organic nitrogen is sent. He appealed to the participants to ensure BNF under these conditions, and look for the organism with such genetic alterations that they will fix nitrogen even in the presence of organic nitrogen.

Dr. Har Swarup Singh, Vice-Chancellor, HAU, who presided, stressed the need for adoption of the nitrogen fixation since the nature had equipped several organism with the capacity of nitrogen fixation. Though the ancient farmers may have been ignorant of the science of nitrogen fixation yet they were fully aware of the importance of nitrogen fixation in crop productivity. This is evidenced in the farming practices followed by them. He appealed to the scientists to find out the scientific ways and means by adoption of which biological nitrogen fixation as well as fertilizer application are adopted for getting higher productivity. He disclosed that a centre on biotechnology had been set up at the College of Basic Science of the university.

Earlier, Dr. Randhir Singh,

Dean of the College of Basic Sciences (HAU) gave details of the work being done in this field at the university. He said that the plant scientists, microbiologists, chemists and geneticists of the university had played a very significant role both collaboratively and individually in understanding the process of biological fixation. As a result, there has been explosion in research on genetics and molecular biology of nitrogen fixation.

Dr. Randhir Singh also disclosed that the scientists of the College of Basic Sciences had brought out three important publications which include: a book on legume research in India from 1920 to till date, nitrogen fixation work being done in the country and a souvenir containing a set of abstracts received from various quarters.

Over 60 participants from all over India and abroad participated in the 3-day symposium.

Biotechnology of Biofertilizers

A training course on Biotechnology of Biofertilisers for Rice was recently inaugurated at the Tamil Nadu Agricultural University (TNAU). The training was given on nitrogen fixing biological systems of Azolla and free living blue green algae. The course was designed to train middle level research workers who have background in biological nitrogen fixation.

Presiding over the function, Dr. A. Narayanan, Registrar of TNAU called upon the scientists to promote cost effective biofertilisers in order to enable the

farmers their enhanced adoption and ensuing stability in rice yield.

Dr. G. Rangaswamy, the renowned agricultural scientist said that for 'gene revolution', in which cloning and transplanting of genes was possible basic researches should be undertaken. In his opinion, microbial biotechnology is basic and important to agriculture and animal biotechnology. For efficient management, the application of chemical fertilisers and biofertilisers should go hand in hand. He called upon the scientists to innovate suitable strains for different ecosystems of our country.

In his keynote address, Dr. G.S. Venkatraman, said that while engineering new strains, their adjustment to soil environment was to be found out. He cautioned the scientists not to lose sight of conventional approaches in this area. Emphasising the extension principle of 'seeing is believing,' Dr. Venkatraman said that the visibility of the benefits of chemical fertilisers was immediately seen by the farmers whereas in the case of biofertilisers it was not so. He emphasised the concept of 'Quality Control' in biofertilisers.

Dr. S. Kannaiyan, the course director, said that the system became self supporting by the production of spores and its cycling. He also said that genetic manipulation was possible in this area.

We Congratulate . . .

Prof. M.I. Savadathi who has been appointed Vice-Chancellor of the Mangalore University.

SPORTS NEWS

Women in Sports

The Annamalai University proposes to organise a National Seminar on "Women in Sports" from January 3-5, 1990. To be organised for the first time on this subject, the seminar is expected to help take a futuristic look on the role of women in sports.

According to Prof. S. Srivatsan, Director, Department of Physical Education and Sciences, Annamalai University, the three-day UGC sponsored seminar will have an array of speakers from various parts of the country. They will include women Arjuna awardees like Suman Sharma, the first woman to get the award in basketball, Kiran Sandhu (basketball) and Mulini Reddy (volleyball).

Dr. Sundarrajan, sports medicine expert, who will be the coordinator (research), said the areas that will come into focus are psycho-sociological constraints, the performance dynamics of sports in women and special problems of women.

Eminent physical education teachers and pioneers proposed to be honoured on this occasion include Dr. L.K. Govindarajalu, founder director of Annamalai physical education department, P.R. Subramaniam, former physical education director, Presidency College, Padmasree P.M. Joseph, founder of the Lakshmibhai National College of Physical Education, C. Ayyaru, former physical education director, Annamalai University, D.G. Wakharkar, pioneer of modern physical education in Maharashtra, Mr. C. Thirunarayanan, ex-principal of Karikudi College and Mr. J.P. Thomas, Dean, YMCA College.

The sportsmen proposed to be honoured are Mr. Dhyaneswaran,

a former India vice-captain in basketball, Balamuruganandan, Asian weightlifting gold medalist, A.P. Rajan, 800 m Asian gold medallist, Vijaykumar, member of India basketball team and Anand Natarajan, a record holder in 100 m in SAF Games

News from UGC

INSAT-1B Programme of UGC

Between 1st December to 7th December, 1989 the following schedule of telecast on higher education through INSAT 1-B under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 12.45 p.m. to 1.45 p.m. and 4.00 p.m. to 5.00 p.m. The programme is available on the TV Network throughout the country.

1st Transmission

12.45 p.m. to 1.45 p.m.

1.12.89

"Vedic Mathematics—IV"
"Comparative Politics"
"Arid Zone Ecology Phase I"

2.12.89

"Change For the Better"
"Music of North India :
Pandit Jasraj"
"University Round Up"

4.12.89

"Surface Tension"
"Inflation"
"Tuffy the Sea Teacher"

5.12.89

"The Basics : Using Modern
Technology—The Micro
Computers"
"Gaur—An Old Crop With
New Uses"
"Pride Drug Conference"

6.12.89

"The New Engineers"
"Environmental Mutagenesis:
Is Our Tomorrow Safe"

7.12.89

"Pulse Circuits—II"
"Secrets of Greenland Ice"
"The Human Seasons—John
Keats"

2nd Transmission

4.00 p.m. to 5.00 p.m.

1.12.89

"Principles of Space Com-
munications"
"The Frog"

2.12.89

"Time Past Time Present"
"Microminiatures of Armenian
SSR"
"In the Service of Man"

4.12.89

"In a Laser Beam"
"Career Guidance : Business
Management"
"The Time Has Come—I"

5.12.89

"The Basics : Systematic
Curriculum Development"
"Plastics and Polymers in
Daily Life—I"
"New Methods of Fracture
Treatment—I"

6.12.89

"Sand Replacement Method"
"Test Chart"
"Chemical Nature of Genes—
Modern Genetics and Human
Welfare—II"

7.12.89

"Computer Memory—I"
"Objectives of Language
Learning—I"

East Zone Inter-University Youth Festival

Banaras Hindu University hosted the East Zone Youth Festival from November 10 to 14, 1989 in which eighteen universities from eastern U.P., Bihar, Orissa, Assam, West Bengal and Manipur participated. The youth festival was sponsored by the Association of Indian Universities in collaboration with the Deptt. of Youth Affairs and Sports, Govt. of India.

The Festival got off to an inspiring start with the presentation of participating contingents in their colourful traditional regional costumes. It was inaugurated by Shri Rajiv Ratan Shah, Commissioner, Varanasi Division by lighting the ceremonial lamp. In his inaugural address he expanded on the theme of a diverse India united by invisible threads of historical and cultural unity.

The cultural items started with skits in which nine teams participated. Rabindra Bharati University's 'Waqt Ki Aawaaz' depicted how selfishness leads to disunity and disorder. Utkal University's satire portrayed how mighty weight lifters are overtaken by a skinny chap fed on the slogan of 'Mera Bharat Mahan'. Indian School of Mines with their 'Dangal' presented a good satire on the election scene. A reporter interviewing people of different classes gets some surprising answers. BHU's 'Murda' had people of different communities fighting over the last rites of a dead body found on the roadside.

The second day of the Festival commenced with Dance and Music events. The Light Vocal Solo started with a ghazal by Tarun Sinha of Indian School of Mines. However, Bhajan appeared to be the favourite with the

singers. The standard of singing was of a high order. Sujata Mohapatra of Berhampur University presented a song 'Ud ja re Kaga' by Mira Bai; while Deepak Vyas of Ravishankar University rendered a song which expressed grief of the Sakhis and gopis after the departure of Lord Krishna.

Clay Modelling event involved nine participants. The topics were—'Family', 'Any subject on Daily Life' and 'A group of musicians'. The criteria for selection of the best models was the technique employed by the sculptor to make the figures, the extent of correlation between them and the message conveyed by different figures when perceived as a whole.

The Classical Dance competition attracted eleven entries. The event opened with 'Krishna Tandav' in Manipuri by Kunjlata Devi of Manipur University. The theme of dance in Basant Raga was taken from Jaidev's Geeta Govinda. The presentation was a charming blend of vigour of the theme and the soft grace of the dancer's style. Magadh University's Sushma Kumari presented a Kathak item starting with Saraswati Vandana, followed by Tukra, Kavitta, Gatbhav & Tatkar. Annu K.J. of Ravishankar University gave a thrilling presentation of Bharathnatyam item 'Malyala Padam Kanikarum Nayrani', a vivid depiction of child Krishna's antics. She began with Kasturi tilakam followed by Ragamalika and Talam Tirnaikum concluding with 'tillana' in 'aditalam'. Varsha Sinha of Patna University presented two Odissi items, starting with Mangalacharan in rag Kamod Kedar,

jhaptal and ektali. She concluded with Maksha Natt. Suchitra Kumari Manjul of K.S.D.S. University performed Shiv Vandana followed by That, Salami, Aamad, Durga Shlok, Chakkardar, Paran, Gatbhav Thumari concluding with Tatkar and Tihai. Babita Mohanty of Berhampur University opened her Oddisi Dance with mangalacharan by Pallan in raag Vasantha and tal ek tali concluding with abhinaya. Ravi Shankar Mishra of Kashi Vidyapeeth gave a scintillating performance of Kathak starting with Guru Vandana followed by Uthaan, Aamad, Gatnikas, Tora, Tihai and concluding with Paran and Tatkar. Final item was beautifully performed by Gopa Biswas in Odissi style from Utkal University. She started with Dashavtaar in Raga Kalyan taal jhaptal followed by Ashtapadi in Raga Bhairavi Jyoti Taal. It was a soft blending of movement of postures.

The item of Cartooning was held on the themes of 'Election', 'Queue' and 'Characters I love'. Most of the cartoons were related to the election issue highlighting the hypocrisy, campaigning and related election issues. The technical points considered while judging a cartoon, were the force of lines, rythm, its spatial balance and colour choice of the cartoonist.

In Mime event, ISM, Dhanbad opened the show with 'Ban the Bomb'—a modernised and frightening version of a Panchtantra story. Utkal University's 'Hunting Tiger' was an impressive solo performance. L.N. Mithila University's 'Dhuan Dhuan' was based on drug addiction. Rabindra Bharati's 'Same Boat Brother' had national integration as its theme. National integration was also the theme of the host BHU's presentation.

Third day's programme commenced with colourful folk and tribal dances. The opening dance was a 'Jhoomer' from Magadh University. NEHU followed with a Victory Dance of the Khasis depicting merrymaking, friendship and security for the people. Gorakhpur University presented the 'Kajari' dance. Manipur University rendered a scintillating performance by their annual festival folk dance 'Lai-Haraoba'. This is celebrated at the shrines of the old sylvan Gods known as Laibungs scattered all over the land.

In Classical Instrumental Solo (Non percussion), Sitar was the most popular instrument among the participants. The event opened with Sarabni Mukerjee of BHU presenting rag 'Bheem' on Sitar accompanied by Ram Kumar Mishra on tabla. Ranjit Sen Gupta of Rabindra Bharati played 'Ahr Bhairav' in teen taal on the sarod. He was accompanied by Pulak Bose on Tabla and Puranjam Tarafdar on Tanpura. Dhruv Kumar Mishra of Kashi Vidyapith presented Gujri Todi on Sitar accompanied by Rajesh Mishra on Tabla. The last item was rag Yaman in teen taal played by Sunanda Mishra of Berhampur, accompanied by Sushil Kumar Patnaik on tabla.

Eleven participants entered the poster making event on the theme of 'Environment and Cleanliness'. Deforestation, nuclear pollution and environmental pollution were the dominant themes of posters.

Classical Vocal attracted ten participants and began with Deepak Bedekar of Ravishankar University rendering rag Kalavati in Jhap-tal and teen tal. He was followed by Uday Shankar Mishra of L.N. Mithila University who performed rag Gujri Todi in Ek Tal and Teen Tal. Ruma Mukherjee of BHU sang rag Bihag in

Bilambit Ek tal and Teen Tal. Somnath Mishra rendered rag Malkauns, Bada Khayal, Chhota Khayal and Tarana. He was accompanied on Tabla by Manoj Kumar Mishra. Udaya Kumar Malik of K.S. Darbhanga University rendered rag Todi in Dhrupad Tal. The programme ended with Ms. Ranjana Vetal of Purvanchal University singing rag Kalavati in Chhota Khayal teen tal.

The fourth day's programme commenced with Western Group performance. Rabindra Bharati University presented the number 'We are one India' while 'Songs of Silence' was presented by the Ravishankar University, NEHU, Shillong and ISM, Dhanbad regaled the audience by their superb performance. In Western Solo C. Bindu of Ravishankar University sang 'Song of Freedom'. She was followed by Sadarika from Berhampur University 'Crooning Sad Movies Always Make Me Cry'. Michael Andrew from NEHU was at his best as he played both the guitar and mouth organ in accompaniment with his own singing and sounded good while he was at it. Niranjana Tarafdar of Rabindra Bharati was also a star attraction with his

Same Boat Brother'.

Fourteen Universities competed in the Indian Group Song event in which Utkal University and BHU proved the best. 'On the Spot Painting' attracted ten universities. Topics for this event were Dharma Shanti, Youth Festival and Procession. Participants used Oil, Water, Photo and Poster Colours as the colouring medium.

Quiz finals were conducted by Mr. Kushal Pal Singh Shante, quiz master for which elaborate arrangements including audio, slides, video projections were made. BHU took an early lead and maintained it till the end, followed closely by Patna University.

One Act Plays were held continuously for two days. The most prominent entries were from Rabindra Bharati and Patna Universities, which were adjudged the best to be represented in the National Youth Festival at Roorkee.

Padma Bhusan Pattabhiram Shastri presided over the Valedictory Function. Padmashree Pandit Kishan Maharaj was the Chief Guest. Both the eminent personalities exhorted the Youth to serve their society and nation with earnestness and sincerity.

Silver Medals and Participation Certificates were given to the Participating Contingents.

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East Zone Inter-University Youth Festival

RESULTS

1. MUSIC (INDIAN)

- (i) Classical Vocal (Solo)
I—Rabindra Bharati
II—B.H.U.
- (ii) Classical Instrumental Solo (P)
I—Kashi Vidyapeeth
II—B.H.U.
- (iii) Classical Instrumental Solo (NP)
I—Ravi Shankar
II—Kashi Vidyapeeth
- (iv) Light Vocal (Indian)
I—B.H.U.
II—Kashi Vidyapeeth
- (v) Group Song
I—Utkal
II—B.H.U.

MUSIC (WESTERN)

- (i) Vocal (Solo)
I—NEHU
II—Ravindra Bharati
- (ii) Group Song
I—I.S.M., Dhanbad
II—NEHU

2. DANCE (Group Dance—Folk/Tribal)

- I—Manipur
II—NEHU

DANCE (CLASSICAL)

- I—Utkal
II—Kashi Vidyapeeth

3. LITERARY EVENT (QUIZ)

- I—B.H.U.
II—Patna

4. THEATRE (ONE ACT PLAY)

- I—Rabindra Bharati
II—Patna

THEATRE (SKITS)

- I—B.H.U.
II—Rabindra Bharati

THEATRE (MIME)

- I—Rabindra Bharati
II—I.S.M., Dhanbad

5. FINE ARTS

- (a) On the Spot Painting
I—Rabindra Bharati
II—Utkal
- (b) Collage
I—Utkal
II—Rabindra Bharati
- (c) Poster Making
I—B.H.U.
II—Ravishankar
- (d) Clay Modelling
I—B.H.U.
II—Patna
- (e) Cartooning
I—B.H.U.
II—Utkal

TROPHY AWARDED TO

- 1. I.T.C. Sangeet Research Academy Trophy for Eastern (Indian) Music ... B.H.U.
- 2. Mata Gurdev Kaur Trophy for Fine Arts ... B.H.U.
- 3. Tata Steel Trophy for Over-all Championship ... B.H.U.
- 4. Trophy for Theatre ... Rabindra Bharati University
- 5. For Western Music ... NEHU
- 6. For Dance ... Manipur University
- 7. For Literary (Quiz) ... B.H.U.
- 8. Best Discipline ... Gorakhpur University
- 9. B.H.U. Trophy for Best March Past ... K.S.D.S. University, Darbhanga
- 10. B.H.U. Trophy for Best Discipline ... Berhampur
- 11. B.H.U. Trophy for Best Discipline ... Tripura

AIU Library & Documentation Services

One of the important functions of the Association of Indian Universities is to act as a clearing house of information on higher education in the country. Towards this end the AIU Library is engaged in collection building and developing instruments for the dissemination of research information. Over the years a valuable collection of books and documents on different aspects of higher education has been acquired.

The Library has also developed Bibliography of Doctoral Dissertation as an effective tool in the dissemination of research information. Retrospective bibliographies covering the period 1857-1970 and 1970-75 were the first to appear. Effective 1975, however, the bibliography is issued annually in two volumes. One volume deals with Natural and Applied Sciences while the other records doctoral degrees awarded in Social Sciences and the Humanities. In addition to the normal bibliographical details like the name of the Research Scholar, the title of the thesis, years of registration for and award of the degree, and the name of the University accepting the thesis for award of a doctoral degree, the bibliography also gives name and complete address of the supervising teacher and an availability note that seeks to inform whether a copy of the dissertation is available for consultation and use in the University Library/Department or Registrar's Office.

The columns 'Theses of the Month' and 'Research in Progress' are intended to cut out the time lag between the receipt of information and its inclusion in bibliography. Such Universities as are not sending us regular information in respect of Doctoral Theses accepted and research scholars enrolled are welcome to make use of these columns.

- The Library is open from 9.00 a.m. to 5.30 p.m. Monday through Friday.

CURRENT DOCUMENTATION IN EDUCATION

A List of Select Articles Culled from Periodicals received in the AIU Library during November, 1989.

EDUCATIONAL PHILOSOPHY

Rohrs, Hermann. The idea of the university in the contemporary world. *Education* Vol. 39, 1989, 52-66.

White, John. Values education for the age of perestroika. *Oxford Rev. Edn.* 15(1), 1989, 29-40.

EDUCATIONAL PSYCHOLOGY

Hurrelmann, Klaus. Youth—A productive phase in human life. *Education* Vol. 39, 1989, 23-40.

West, Leo H.T. and Hore, Terry. The impact of higher education on adult students in Australia : Part 2. The person. *Hr. Edn.* 18(4), 1989, 473-83.

EDUCATIONAL POLICY AND PLANNING

Kuraishy, Salma. Educational policy : A real oasis or a mirage. *Edn. Q.* 38(1), 1986, 1-4.

Prem Kirpal. How to plan education of the future. *Yojana* 33 (14 & 15), 1989, 80-85.

EDUCATIONAL ADMINISTRATION

Birnbaum, Robert. The cybernetic institution : Toward an integration of governance theories. *Hr. Edn.* 18(1), 1989, 239-58.

Bradshaw, David. Higher education, personal qualities

and employment : Teamwork. *Oxford Rev. Edn.* 15(1), 1989, 55-71.

Chibucos, Thomas R. Leadership development in higher education : An evaluation of the ACE fellows program. *J. Hr. Edn.* 60(1), 1989, 21-42.

Eustace, Rowland. Freedoms for academics. *Hr. Edn. Q.* 43(3), 1989, 216-28.

Murthy, N.V.K. Autonomy of universities—An experience. *Mainstream* 27(52), 1989, 23-24.

Shankar Narayan, D. Organisation and management of higher education institutions. *New Frontiers Edn.* 19(2), 1989, 238-44.

A VOLUNTARY CLUB. *The Times Hr. Edn. Supplement*, 20.10.1989, 17.

TEACHERS & TEACHING

Beare, Paul L. The comparative effectiveness of videotape, audiotape and telelecture in delivering continuing teacher education. *American J. Distance Edn.* 3(2), 1989, 57-66.

Fox, Jane and Metcalfe, Judith. A strategy for staff development. *Open Learning* 4(1), 1989, 48-51.

Jackson, M.W. and Prosser, M.T. Less lecturing, more learning. *Studies Hr. Edn.* 14(1), 1989, 55-68.

75 YEARS : A RETROSPECTIVE on the occasion of the seventy-fifth Annual Meeting. *Academe* 75(3), May-June 1989, p-2-88.

EDUCATIONAL RESEARCH

Coldstream, Patrick. Marketing as matching. *Hr. Edn. Q.* 43(2), 1989, 99-107.

Gillett, Raphael. Research performance indicators based on peer review: A critical analysis. *Hr. Edn. Q.* 43(1), 1989, 20-38.

EDUCATIONAL TECHNOLOGY

Friend, Jamesine. Interactive radio instruction: Developing instructional method. *British J. Ednl. Tech.* 20(2), 1989, 106-14.

Karovsky, Penelope. Educational technology's metaphors. *British J. Ednl. Tech.* 20(3), 1989, 157-63.

EDUCATIONAL EVALUATION

Burney, Farhat Ali. Students' evaluation of teaching in a Saudi Arabian University. *British J. Ednl. Tech.* 20(3), 1989, 200-208.

Cook, Linda L. and Eignor, Daniel R. Using item response theory in test score equating. *Intl. J. Ednl. Res.* 13(2), 1989, 161-73.

Gallagher, Tony. The evaluation function of the commonwealth tertiary education commission. *Studies Ednl. Eval.* 15(1), 1989, 151-59.

Hambleton, Ronald K. and Rogers, H. Jane. Solving criterion-referenced measurement problems with item response models. *Intl. J. Ednl. Res.* 13(2), 1989, 145-60.

Montanari, John R. and Moorhead, Gregory. Development of the groupthink assessment inventory. *Ednl. Psy Measurement* 49(1), 1989, 209-19.

Owen, John M. Encouraging action through new orientations to evaluation. *Studies Ednl. Eval.* 15(1), 1989, 141-50.

ECONOMICS OF EDUCATION

Crespo, Manuel. The management of austerity in higher

education: An international comparison. *Hr. Edn.* 18(4), 1989, 373-95.

Leonard, Herman B. Keeping college within reach: Five strategies to help the disadvantaged. *Coll. Bd. Rev.* (152), 1989, 22-25, 33-4.

Turner, John. The open market in higher education: The universities and the future. *British J. Ednl. Studies* 37(2), 1989, 99-110.

Woodhall, Maureen. Loans for learning: The loans versus grants debate in international perspective. *Hr. Edn. Q.* 43(1), 1989, 76-87.

VOCATIONAL EDUCATION

Corlett, J.T. and Macfarlane, Ian G. University science and agriculture education in developing countries. *Hr. Edn.* 18(4), 1989, 411-21.

McCormick, Kevin. Towards a lifelong learning society? The reform of continuing vocational education and training in Japan. *Comp. Edn.* 25(2), 1989, 133-49.

DISTANCE EDUCATION

Marland, Perc. An approach to research on distance learning. *British J. Ednl. Tech.* 20(3), 1989, 173-82.

Nation, Daryl, and Evans, Terry. Dialogue in practice, research and theory in distance education. *Open Learning* 4(2), 1989, 37-42.

Rumble, Greville. On defining distance education. *American J Distance Edn.* 3(2), 1989, 8-21.

Tight, Malcolm. Part-time higher education as open learning. *Open Learning* 4(2), 1989, 3-6.

COMPARATIVE EDUCATION & COUNTRY STUDIES

Fairweather, James S. Academic research and instruction: The industrial connection. *J. Hr. Edn.* 60(4), 1989, 388-407.

Rapple, Brendan. Matthew Arnold and comparative education. *British J. Ednl. Studies* 37(1), 1989, 54-71.

Wu, Wen-Hsing and others. The development of higher education in Taiwan. *Hr. Edn.* 18(1), 1989, 117-136.

THESES OF THE MONTH

A List of Doctoral Theses Accepted by Indian Universities

BIOLOGICAL SCIENCES

Anthropology

1. Dey, Swarupa. *Antigenic and biochemical variations in relation to malaria among the AO Nagas.* Delhi.

2. Jain, Namrata. *Studies in blood genetics with special reference to tribes around Panchmarhi.* Barkatullah, Dr. H. K. Goswami, Prof. and Head, Department of Genetics, Barkatullah Vishwavidyalaya, Bhopal.

3. Kushwaha, Krit Pal Singh. *A study of serogenetic markers among the people of Haryana and its application in forensic science.* Punjab. Dr. I.J.S. Bansal, Prof. and Head, Department of Human Biology, Punjabi University, Patiala.

Forensic Science

1. Selvakumar, A. *Studies on some aspects of HLA system.* Madras.

Biology

1. Shahul Hameed, T.S. *Spectral and statistical characteristics of shoaling waves off Alleppey West Coast of India.* CUST. Dr. M. Babu, Scientist-in-charge, Centre for Earth Science Studies, University of Science and Technology, Cochin.

Biochemistry

1. Devamanoharan, P.S. *Biochemical studies on the effect of polychlorinated dibenzofurans (PCDFs) in rats.* Madras.

2. Mukhopadhyay, Somnath. *Studies on the neurobiochemical effects of environmental temperature.* Calcutta.

3. Nagini, S. *Carcinogenic potential of clofibrate induced hepatocellular changes.* Madras.

4. Pari, L. *Some biochemical studies on the effect of the pesticide gamma benzene hexachloride studies in chicks.* Madras.

5. Raj, Sanjiv. *Lipids and membrane bound enzyme changes with bata adrenergic stimulation in alcohol dependent rats.* Madras.

6. Rajesh Kumar, Barur Rajarathinam. *Biochemical markers in blood for glucose homeostasis, studies in juvenile diabetics under insulin and Gymnema sylvestre. R.B. therapy.* Madras.

7. Ray, Bidyut. *Physico-chemical studies on L-crystallin from goat's lens.* Calcutta.

8. Renuka, A. *Biochemical studies in diseases with reference to hepatic failure.* Madras.

9. Srinivas, P.R. *Biochemical studies in experimental myocardial infarction induced by the beta against isoproterenol and its prevention by Anna Pavala Sindhooram compared with propranolol and nifedipine.* Madras.

10. Sukharaja, M. *Biochemical studies on pheochromocytoma and neuroblastoma.* Madras.

Botany

1. Bains, Gurmit Singh. *Effect of plant bioregulators on the germination, growth abscission and yield in two species of cotton.* PAU.

2. Chitti Babu, Davuluri. *Analysis of factors concerned with panicle initiation and spikelet differentiation in rice.* Berhampur.

3. Gurinderjit Kaur. *Studies on Phytophthora blight of Cajanus cajan (L.) Millsp with special reference to its ecology, physiology and control.* Kurukshetra.

4. Jani, Sureshchandra Ravishankar. *Flora along the river Mhor, Kaira District from origin to mouth.* Bhavnagar. Dr. D.C. Bhatt, Sir P.P. Institute of Science, Bhavnagar.

5. Jha, Prakash Kumar. *Wild legume-Rhizobium symbiosis: Ecology and technology.* Delhi.

6. Khan, Aysa. *In vitro studies in tracheary element differentiation in citrus juice vesicles.* NEHU. Dr. Y S. Chaubhan, Department of Botany, North Eastern Hill University, Shillong.

7. Patil, Mohan Kumar. *Hydrobiological studies of a deep discharge reservoir, Waghyanal Sausar, Chhindwara District.* HS Gour. Dr. K.S. Unni, Prof., Department of Botany, Govt. P.G. College, Chhindwara.

8. Pawnesh Kumar. *Evaluation of bio-fuels, Solan District, Himachal Pradesh.* YS Parmar. Prof. N.K. Joshi, Department of Silviculture and Agro-forestry, College of Forestry, Solan.

9. Sal Gopal, Dive Venkata Ramana. *Studies on biology of peanut green mosaic disease supression in groundnut, Arachis hypogaea L. by bavistin (50% W/W) carbendazim.* Venkateswara. Dr. P. Sreenivasulu, Department of Botany, Sri Venkateswara University College, Tirupati.

10. Sasidharan, S. *Studies on Indian red algae.* Madras.

11. Sri Ram Ch. *Studies on nitrate reduction in cowpea Rhizobium.* Madras.

12. Subramanian, T.D. *Blue-green algae of paddy fields: Ecological studies on natural population and physiological responses of certain isolates.* Madras.

13. Sulochana, T. *Studies on vesiculararbuscular mycorrhizal fungi in relation to the growth of sesamum indicum L. Osmania.*

14. Velmurugan, A. *Studies on grassy shoot disease of sugarcane, Saccharum officinarum L.* Madras.

15. Venkatappa, B. *Studies on the Cercospora leaf spot disease of groundnut.* Madras.

16. Vishwakarma D, Manju. *Studies on induced polyploids in Gloriosa superba Linn.* Nagpur. Dr. J.L. Tarar, Department of Botany, Institute of Science, Nagpur.

17. Yadav, Vijay Kumar. *Germination studies of selected forest tree seeds with special reference to storage conditions.* HS Gour. Prof. G.P. Mishra, and Dr. P.K. Khare, Asstt. Prof., Department of Botany, Dr. Harisingh Gour Vishwavidyalaya, Sagar.

Agriculture

1. Chowdhary, Harinder Kumar. *Studies on gene action for yield and other quantitative traits in Vigna angularis Willd cross.* HP Krishni. Dr. Tashi Dawa, Department of Plant Breeding and Genetics, College of Agriculture, Palampur.

2. Gupta, Pankaj Kumar. *Epidemiology and management of fungal nematode rhizome rot complex of ginger.* YS Parmar. Dr. K.R. Shyam, Department of Mycology and Plant Pathology, College of Horticulture, Solan.

3. Gupta, Rakesh Kumar. *In vitro and in vivo studies on wide hybridization for alien transfer of stress tolerance in peas, Pisum sativum L.* HP Krishni. Dr. G.S. Sethi, Department of Plant Breeding and Genetics, College of Agriculture, Palampur.

4. Gupta, Sanjiv. *Studies of nature, diversity and expression of leaf rust, resistance genes in selected wheat varieties.* PAU.

5. Katti, Gururaj Sridharacharya. *Performance of some pulse and oilseed crops under soil salinity and alkali conditions.* Kurukshetra.

6. Manoharan, P. Muthiah. *Nutritional improvement of the rural community through extension.* Madras.

7. Mohapatra, Krushna Chandra. *Genetics of agronomical traits in rice: Studies on stability, genetic divergence combining ability and heterosis in early rice varieties.* OUAT. Dr. K.K. Mohanty, Ex-Prof., College of Agriculture, Orissa University of Agriculture and Technology, Bhubaneswar.

8. Pathik, Sant Ram. *Studies on gene action and GxE (genotype x environment) interaction in Vigna angularis Willd cross.* HP Krishni. Dr. V.P. Gupta, Department of Plant Breeding and Genetics, College of Agriculture, Palampur.

9. Patil, Ashok Onkar. *Studies on diseases of onion Allium cepa L. with special reference to alternaria leaf blight.* Mahatma Phule. Dr. B.C. Patil, Maharashtra Council of Agricultural Education and Research, Agriculture College, Pune.

10. Patil, Murlidhar Tukaram. *Studies on the regulation of flowering in Gladiolus.* MP Agrl. Dr. K.G. Choudhari, Prof., Department of Horticulture, Postgraduate Agricultural Institute, Rahuri.

INDIAN SCHOOL OF MINES

DHANBAD-826004.

ADMISSION NOTICE —1990

No. : 601001/89

Dated : 01.11.1989

Indian School of Mines, deemed to be a University under the UGC Act, invites applications from candidates desirous to appear at its Entrance Examinations to be held on Friday, the 4th May and Saturday, the 5th May, 1990 for admissions to different programmes as per details given below :

Form No.	Name of the Programme	Disciplines of Admission	Number of Seats.	Minimum qualification for admission	Maximum age limit* as on 15.6.1990.	Subjects of Entrance Examination.	Remarks
A.	4-year (8-Semester) B.Tech	(i) Mining Engg. (ii) Open Cast Mining (iii) Mining Machinery (iv) Petroleum Engg. (v) Mineral Engg.	60 15 30 30 15	Pass in I Sc or two year PUC or Class XII of CBSE or +2 of 10+2 pattern of equivalent exam with Physics, Chemistry, Mathematics and English	21 years for Pet. Engg. and 22 years for others.	(i) English (ii) Physics (iii) Chemistry (iv) Mathematics	
B.	3-year (6-Semester) Earth Science M.Sc. Tech.	(i) Applied Geology. (ii) Applied Geophysics	20 20	Pass in B.Sc (3 yr course)/(B.Sc. 2 year + 1 yr. Bridge course) of 10+2+3 pattern with Geology as Major/Hons subject and any two subjects out of Physics, Chemistry and Mathematics. Pass in B.Sc (3yr. course)/(B.Sc. 2yr. + 1 yr Bridge course) of 10+2+3 pattern with Physics as Major/Hons subject and Mathematics as subsidiary subject and also any one subject out of Chemistry, Geology, Statistics, Electronics, Computer Science.	24 years 24 years	(i) Compulsory : Higher Geology (ii) Optional : one from Physics, Chemistry and Mathematics. (i) Compulsory : Higher Physics (ii) Optional : One from Mathematics, and Chemistry.	The candidate should have passed 10 + 2 or equivalent exam. with Physics, Chemistry, Mathematics and English. -do-

C.	3 year (6-Semester) Condensed B.Tech.	(i) Mining Engg. (ii) Mineral Engg.	5	Diploma in Mining or in Mining and Mine Surveying	No age limit	(i) English (ii) Physics (iii) Chemistry (iv) Mathematics	(i) The Candidate should have passed Diploma after SSLC/HS or equivalent exam. and should have had one year industrial ex- perience after Diploma.
		(iii) Mining Machinery	5	Diploma in Mech/ Elect. Engg.			(ii) Sponsored candidates preferred.

*Relaxable by 3 years for SC/ST Candidates.

Note : Examinations for category C will be conducted only when number of eligible candidates is minimum 50.

Those who are appearing at any of the qualifying examinations may also apply; however their admissions (if selected) will be subject to the condition that their examinations (both theory and practicals) have finished earlier than 15th June, 1990 and that the results of having passed the examinations are submitted before 30th September, 1990.

Reservation of Seats

- (I) 15% of the seats in all programmes are reserved for Scheduled Caste and 7½% for Scheduled Tribe candidates.
- (II) One seat each in Petroleum Engg, Opencast Mining and Mineral Engg of 4-year B.Tech programme and one seat each in Applied Geology and Applied Geophysics of M.Sc.Tech programme are reserved for GIRL CANDIDATES subject to their qualifying in the relevant Entrance Examination as specified in Memorandum of Information. **Girl candidates are not eligible for other programmes.**
- (III) Two seats are reserved in 4-year B.Tech programme for Children/Wards of Defence personnel killed/disabled in war or during peace period.

No reason whatsoever shall be considered valid for late submission of the completed form.

Detailed Memorandum of Information and the Application Forms (A,B,C,) available from the 3rd week of December, 1989 onwards, can be had from the office of the undersigned either in person or by post on remitting a **Crossed** Indian Postal Order for Rs. 20/- payable to the Registrar, Indian School of Mines, Dhanbad at ISM Post Office, Dhanbad. (No Bank Drafts/Money Orders are acceptable)

Candidates should **CLEARLY SPECIFY** the form they require (A,B,C,) in their request and superscribe the same on the envelope.

- | | | |
|--|---|--------------------|
| (i) Last date for availability of Form by post | : | February 17, 1990. |
| (ii) Last date for receipt of completed applications | : | February 28, 1990. |

B.N. Sinha
DY. REGISTRAR (ACADEMIC)
&
SECRETARY, ADMISSION COMMITTEE

CLASSIFIED ADVERTISEMENTS

SHREEMATI NATHIBAI DAMODAR THACKERSEY WOMEN'S UNIVERSITY

1, NATHIBAI THACKERSEY ROAD
BOMBAY-400 020

Advertisement No. 18

Dated : 6.11.1989

Applications are invited in the prescribed forms (8 copies) available from the SNDT Women's University Office, 1 Nathibai Thackersey Road, Bombay-400 020, on payment of Rs. 15/- (by M.O./in cash) for the post of Finance Officer, to be filled in at Shreemati Nathibai Damodar Thackersey Women's University, Bombay, so as to reach the undersigned not later than December 10, 1989.

Pay Scale : Rs. 1100-50-1550-75-1700+admissible allowances under the University rules (Shortly to be revised). Total initial emoluments inclusive of allowances will be approximately Rs. 4200/- per month.

Qualifications & Experience.

- (1) A Master's Degree in the Faculty of Commerce at least with 55% of marks or equivalent grade with Accountancy and Auditing as optional subjects, or a Chartered Accountant or qualifications recognised as equivalent thereto. Certificate/Diploma in Business Administration will be an added qualification.
- (2) A person to be appointed to the post of Finance Officer shall have to his credit at least ten years experience of working as In-charge of the Accounts and Finance sections of Universities, commercial bodies, Banks or Corporations or Government Departments, dealing with accounts and auditing.
- (3) Knowledge of the regional languages and any one other medium of instruction prevalent at the University.
- (4) At the time of appointment, the candidate shall not be above 45 years of age.

Note :

- (1) Only suitable candidates will be called for interview,
- (2) Responsibilities, service conditions of the post will be as per statutes and Act and as laid down from time to time.
- (3) Scales will be revised as per new Govt. G.R.
- (4) Candidate will attend the interview with their own cost.

P.K. Thakkar
REGISTRAR

UTKAL UNIVERSITY

Applications in Seven copies are invited in the prescribed forms along-with attested copies of certificates and marklists of all examinations passed for the following posts (with specialization indicated, if any) of the University so as to reach the Registrar, Utkal University, Vani Vihar, Bhubaneswar-751004, on or before the 11th December, 1989 from inland candidates and the 26th December, 1989 from candidates abroad.

2. Prescribed application forms can be had from the University information counter on production of a Bank Receipt from S.B.I. Vani Vihar or a crossed Bank Draft payable at S.B.I. Vani Vihar or a crossed Indian Postal Order worth Rs. 30/- (Rs. thirty only) drawn in favour of the Comptroller of Finance, Utkal University, Vani Vihar, Bhubaneswar-751004 in person or by post on receipt of a crossed Bank Draft/crossed Indian Postal Order worth Rs. 30/- (Rs. thirty only) and a self-addressed envelope (23cm x 10cm) size duly affixed with postage stamps worth Rs. 8.50 (Rs. eight and paise fifty only) superscribed thereon with the words "Application form for teaching posts under Utkal University".

3. The details regarding scales of pay and other allowances, age of superannuation as well as educational qualifications for the posts and other conditions can be had from the University counter alongwith the prescribed forms.

4. Posts (with specialization if any indicated in the bracket) :

1. Physics :
Mayurbhanj Professor of Physics One
2. Oriya :
Reader in Oriya One
3. Anthropology :
(a) Professor of Anthropology One
(b) Professor of Anthropology One
(D.S.A. Post—specialization in Anthropology of Regional Development with special reference to Orissa).
- (c) Lecturer of Anthropology Two
(D.S.A. Post—Specialization in Anthropology of Regional Development with special reference to Orissa—One post reserved for S.T.).
4. Philosophy :
(a) Professor of Philosophy One
(Lien vacancy).
- (b) Professor of Philosophy — One
(D.S.A. Post—specialization in Philosophical analysis of values).
- (c) Traditional Scholar— One
Reserved for S.T.
(D.S.A. Post—Traditional scholar in Sanskrit/Pali to interpret the Original Texts in Sanskrit/Pali to help in carrying out research in Analytical studies of values, analytical studies of the basic concept in Indian Philosophy—Lecturer grade).
5. Directorate of Correspondence Course :
(a) Lecturer in Oriya On
(b) Lecturer in Political Science On
6. Law Colleges
Lecturer (Whole time) On

REGISTRAR

Shreemati Nathibai Damodar Thackersey Women's University

1, NATHIBAI THACKERSEY ROAD,
BOMBAY-400 020

Advertisement No. 17

Applications are invited in the prescribed forms available at the University Office between 10.30 a.m. and 1.00 p.m. and 1.30 p.m. and 2.30 p.m. from Mondays to Fridays and between 10.30 a.m. and 12 Noon on Saturdays on payment of Rs. 25/- for Teaching posts and Rs. 15/- for non-teaching (M.O./in cash) for the following posts to be filled in at the University Department and its conducted institutions at Bombay and Poona, so as to reach the undersigned on or before December 10, 1989.

The posts will be filled in according to revised UGC qualifications and revised salary scales.

Please collect details of the qualifications of posts and other general conditions from the counter alongwith application form.

Sr. No.	Post and Name of the Deptt./ Institution	Total Post	Post under open Category	Post under Reserved Category	Medium of Teaching/ Instruction	Revised Pay Scale
1	2	3	4	5	6	7
A. Dept. of Post Graduate Studies & Research, Bombay-20						
1.	Reader in Marathi	ONE	ONE	—	MARATHI	Rs. 3700-125-4950-150-5700+ admissible allowances
2.	Lecturer in Marathi	ONE	ONE	—	MARATHI	Rs. 2200-75-2800-100-4000+ admissible allowances
3.	Reader in English	ONE	ONE	—	ENGLISH	Rs. 3700-125-4950-150-5700+ admissible allowances
4.	Reader in Psychology	ONE	ONE	—	ENGLISH	-do-
5.	Professor in Sociology	TWO	TWO	—	MAR & ENG GUJ & ENG	Rs. 4500-150-5700-200-7300+ admissible allowances
6.	Lecturer in Politics	ONE	ONE	—	ENG & MAR	Rs. 2200-75-2800-100-4000+ admissible allowances
7.	Reader in Art & Painting	ONE	ONE	—	ENG & GUJ/ MAR	Rs. 3700-125-4950-150-5700+ admissible allowances
Under Post Graduate Dept. of Commerce, Bombay-20						
8.	Lecturer in Commerce	ONE	ONE	—	ENGLISH	Rs. 2200-75-2800-100-4000+ admissible allowances
Under Post Graduate Dept. of Gujarati, Bombay-20, Under Special Asst. Programme.						
9.	Lecturer in Gujarati (Non-vocational)	ONE	ONE	—	GUJARATI	Rs. 2200-75-2800-100-4000+ admissible allowances
B. Dept. of Post Graduate in Education and Research Centre of Education, Bombay-20						
1.	Professor in Education	ONE	ONE	—	ENG & MAR/ GUJ	Rs. 4500-150-5700-200-7300+ admissible allowances
2.	Lecturer in Education	ONE	ONE	—	GUJ & ENG	Rs. 2200-75-2800-100-4000+ admissible allowances

1	2	3	4	5	6	7
Under Centre of Education						
*3.	Jr. Library Assistant	ONE	—	ONE	—	**Rs. 365-15-500-20-660-Extn-20-760+adm. allow.
Under Post Graduate Dept. of Language Teaching, Centre of Education, Bombay-20						
4.	Reader & Head of the Dept. of Language Teaching	ONE	ONE	—	ENG & MAR/ GUJ	Rs. 3700-125-4950-150-5700+admissible allowances
C. Post Graduate Dept. of Education SNDT College of Education for Women, Poona						
1.	Lecturer in Education (Specialisation in Teacher Education/Educational technology/Sociology of Education/any of the optional papers of M. Ed).	ONE	ONE	—	ENG & MAR	Rs. 2200-75-2800-100-4000+admissible allowances
D. SNDT College of Education for Women, Poona						
1.	College Librarian	ONE	ONE	—	—	Rs. 2200-75-2800-100-4000+admissible allowances
E. SNDT Arts & Commerce College for Women, Poona						
1.	Lecturer in Psychology	ONE	ONE	—	MAR & ENG	Rs. 2200-75-2800-100-4000+admissible allowances
2.	Lecturer in Geography	ONE	ONE	—	MAR & ENG	-do-
F. SNDT College of Home Science for Women, Poona						
1.	Lecturer in English	ONE	ONE	—	ENGLISH	Rs. 2200-75-2800-100-4000+admissible allowances
*2.	Lecturer in Food Science & Nutrition	ONE	—	ONE	ENG & MAR	-do-
3.	Lecturer in Family Resource Management	ONE	ONE	—	ENG & MAR	-do-
4.	Lecturer in Foods & Nutrition	ONE H.T TMP	ONE H.T TMP	—	ENG & MAR	Half of the above basic/as prescribed under new GR
5.	Lecturer in Physics	-do-	-do-	—	-do-	-do-
6.	Lecturer in Physiology	-do-	-do-	—	-do-	-do-
G. Post Graduate Dept. in Home Science at SNDT College of Home Science for Women, Poona.						
1.	Professor in Communication Media for Children	ONE	ONE	—	ENGLISH	Rs. 4500-150-5700-200-7300+admissible allowances
2.	Reader in any Area of Home Science	ONE	ONE	—	ENGLISH	Rs. 3700-125-4950-150-5700+admissible allowances
H. SNDT College of Arts & C.B. Shah College of Commerce & Economics, Bombay-20						
*1.	Lecturer in Art & Painting	ONE	—	ONE	ENG & MAR/ GUJ	Rs. 2200-75-2800-100-4000+admissible allowances

1	2	3	4	5	6	7
*2.	Lecturer in History	ONE	—	ONE	MAR & ENG	Rs. 2200-75-2800-100-4000+
3.	Lecturer in Psychology	ONE	ONE	—	ENGLISH	admissible allowances.
4.	Lecturer in Economics	ONE	ONE	—	ENGLISH	-do-
*5.	Lecturer in Economics (in Commerce Stream)	ONE	—	ONE	ENGLISH	-do-
6.	Lecturer in Accountancy (in Commerce Stream)	ONE	ONE	—	ENGLISH	-do-
*7.	Tabla Player	ONE	—	ONE	—	**Rs. 260-10-390-15-420-Extn- 15-495+adm. allow.
I.	Dept. of Correspondence Course, Sir Vithaldas Vidyavihar, Bombay-49					
1.	Assistant Director (Social Sciences)	ONE TMP	ONE TMP	—	ENG & MAR/ GUJ	Rs. 2200-75-2800-100-4000+ admissible allowances
2.	Sr. Head Clerk	ONE	ONE	—	—	**Rs. 500-20-700-25-900+ admissible allowances.
J.	Dept. of Continuing & Adult Education & Extn. Work, Bombay-20 Under Post Master's Diploma Course in Continuing & Adult Education, Bombay-20					
*1.	Assistant Director	ONE	—	ONE	—	**Rs. 1200-50-1300-60-1900+ admissible allowances. (Likely to be revised)
K.	SNDT Women's University (Central) Library, Bombay-20 Under Information Centre					
1.	Deputy Librarian	ONE TMP	ONE TMP	—	—	Rs. 3700-125-4950-150-5700+ admissible allowances.
	Under Central Equipment Facility Unit	TENURE TENURE				
*2.	Lecturer (Instrumentation)	ONE	—	ONE	ENGLISH	Rs. 2200-75-2800-100-4000+ admissible allowances.
L.	SNDT Women's University Extn. Library, Bombay-49					
1.	Deputy Librarian	ONE	ONE	—	—	Rs. 3700-125-4950-150-5700+ admissible allowances.
*2.	Jr. Library Assistant	ONE	—	ONE	—	**Rs. 365-15-500-20-660-Extn- 20-760+adm. allow.
M.	Post Graduate Dept of Library Science SHPT School of Library Science, Bombay-20					
1.	Reader in Library Science	ONE	ONE	—	ENGLISH	Rs. 3700-125-4950-150-5700+ admissible allowances.
N.	L.T. College of Nursing, Bombay-20					
*1.	Ward Sister	ONE	—	ONE	—	**Rs. 365-15-500-20-660-Extn- 20-760+adm. allowances.
O.	Dept. of Physical Education, SNDT/ Women's University, Bombay-20					
1.	Director	ONE TMP	ONE TMP	—	ENG & MAR/ GUJ	Rs. 2200-75-2800-100-4000+ admissible allowances.

1	2	3	4	5	6	7
P.	Dept. of Special Education, Bombay-49					
1.	Supervisor (in the Lecturer's Scale)	ONE	ONE	—	ENGLISH	Rs. 2200-75-2800-100-4000+ admissible allowances.
Q.	Post Graduate Dept. of Economics, at SNDT Art & Commerce College for Women, Poona					
*1.	Lecturer in Economics	ONE	—	ONE	MAR & ENG	Rs. 2200-75-2800-100-4000+ admissible allowances.
R.	Post Graduate Dept. of Computer Science at Sir Vithaldas Vidyavihar, Bombay-49					
1.	Lecturer in Computer Science	ONE	ONE	—	ENGLISH	Rs. 2200-75-2800-100-4000+ admissible allowances.
S.	C.U. Shah College of Pharmacy, Sir Vithaldas Vidyavihar, Bombay-49					
*1.	Store Keeper	ONE	—	ONE OBC	—	**Rs. 365-15-500-20-660-Extn- 20-760+adm. allowances
T.	SNDT Women's University Hostel at Sir Vithaldas Vidya Vihar (Juhu Campus) Bombay-49					
1.	Assistant Hostel Superintendent (Female Residential)	ONE	ONE	—	—	**Rs. 395-15-500-20-700-Extn- 20-800+adm. allowances
U.	SVT College of Home Science for Women, Sir Vithaldas Vidyavihar, Bombay-49					
*1.	Lecturer in Family Resource Management	ONE	—	ONE	ENGLISH	Rs. 2200-75-2800-100-4000+ admissible allowances
V.	Patkar Hall, SNDT Women's University Bombay-20					
1.	Hall Manager	ONE	ONE	—	—	**Rs. 680-40-1000-50-1500+ admissible allowances
W.	Dept. of Post Graduate Studies & Research in Home Science at SVT College of Home Science, Bombay-49					
1.	Reader in Extension Education	ONE	ONE	—	ENGLISH	Rs. 3700-125-4950-150-5700+ admissible allowances

Applications of Scheduled Castes/Scheduled Tribes/Nomadic Tribes/DNT will be considered as per Government directives. *Indicates post under reserved category and will be filled by SC/ST/DNT/NT candidates only. **Indicates old pay scale for non-teaching posts (Likely to be revised). Incomplete applications and applications on a plain paper will not be considered. Applicants (Local) are advised to submit their application forms (duly filled in) alongwith three copies of certificates, indicated under item 4 of the General Note of the Advertisement and 'e' of the Note of application form to inward clerk, Stores Department, University, Bombay-20 within the time scheduled.

P.K. Thakkar
REGISTRAR

BHAVNAGAR UNIVERSITY

Special Recruitment drive for Scheduled Caste/Scheduled Tribe/ Socially and Educationally Backward Class/Physically Handicapped candidates :

NOTIFICATION NO. 5/89

Applications are invited for the following posts in the prescribed format as given below alongwith the non-refundable fees of Rs. 12.50 (Rs. Twelve & Paise fifty only) by crossed I.P. Order, favouring "Registrar, Bhavnagar University, Bhavnagar" or by depositing the Cash in the University Office on working days between 11-00 A.M. to 2-00 P.M., so as to reach the undersigned on or before 15-12-'89.

Sr. No.	Name of the Post	No. of Posts	Pay-Scale	
(1)	Lecturer in English (For Samaldas Arts College, Bhavnagar).	Two	2200-4000	One post is reserved for SC Two posts are reserved for ST and One post is reserved for Physically Handicapped.
(2)	Lecturer in Sanskrit (For Samaldas Arts College, Bhavnagar).	One	2200-4000	
(3)	Lecturer in Psychology (For Samaldas Arts College, Bhavnagar).	One	2200-4000	
(4)	Lecturer in Chemistry (For Sir P.P. Instt. of Science).	One	2200-4000	Reserved for SC/ST/SEBC and Physically Handicapped.
(5)	Lecturer in Statistics (For Sir P.P. Instt. of Science).	One	2200-4000	
(6)	Deputy Registrar	One	3000-4500	Reserved for ST candidates. Sanctioned upto 31-3-90.
(7)	Laboratory Technician (One for Chemistry Department & One for Marine Science Dept.)	Two	1350-2200	Reserved for ST and Physically handicapped candidates.
(8)	Assistants	Ten	950-1500	

College Lecturer : (For Post No. 1 to 5) For Post No. 7 : (Chemistry Department)

(i) A candidate holding a M. Phil degree or a recognised degree beyond the Master's level should possess at least 55% marks at Master's degree.

OR

(ii) A candidate not holding a M. Phil degree or a recognised degree beyond the Master's level should possess atleast 55% marks at Master's degree and atleast second class in First degree (B.A./B.Sc./B. Com.) Examination.

For Post No. 6 :

Post-Graduate degree from any faculty with Ten years administrative experience or graduate from any faculty with twelve years Administrative experience of higher education Institute. Experience of SC/ST Cell will be Preferred. Law degree will be an added qualification.

(i) B. Sc. with Chemistry having Three years experience as Laboratory Assistant Experience of maintaining Laboratory equipments will be considered as additional qualifications.

(ii) (For Marine Science Department M.Sc. with Chemistry OR B.Sc. with Chemistry. Experience of Two years operating chemistry practicals or working in R & D Laboratory. Knowledge of Analytical and Spectroscopics equipments and operations thereof is necessary.

For Post No. 8

Candidate should be graduate of any faculty from the recognised University.

Age Limit : Not exceeding 45 years.

Candidates belonging to SC/ST/SEBC should attach their Caste Certificate from the competent authority and

mention the Employment Card number and District. Physically handicapped candidates should produce the certificate from the Civil Surgeon.

Applicants who are in service should apply through proper channel.

Incomplete forms will not be considered. Applications received after the prescribed date will not be considered.

Application Format : (For Teaching posts)

- (1) Full Name :
- (2) Resident Address :
- (3) Address of Correspondence :
- (4) Date of Birth :
- (5) Educational Qualifications :
- (6) Whether a member of SC/ST/SEBC/Physically Handicapped :
- (7) Teaching Experience :
- (8) Research Experience (If any) :
- (9) Experience about P.G. Teaching :

Application Format : (For Administrative posts).

No. (1) to (6) as above.

No. (7) Service experience.

REGISTRAR

UNIVERSITY COLLEGE OF MEDICAL SCIENCES AND GURU TEG BAHADUR HOSPITAL

SHAHNARA, DELHI-110095

Advt. No. MC/ESTAB./2/11/89-V

Applications on the prescribed form are invited for the following Teaching and Non-Teaching posts to reach latest by 10.12.1989.

A-TEACHING

(1) Professors : Rs. 4500-7300—One each for the Department of Medicine* and Dermatology & STD.

(2) Readers : Rs. 3700-5700—One each for the Departments of Biochemistry* (with medical qualifications); Biophysics in Physiology*; Microbiology*; Surgery; Anaesthesiology; Dentistry (Temporary); Pathology*; and Obst. & Gynae. (2 posts).

(3) Lecturers : 2200-4000—One each for the Departments of Biochemistry; Physiology*; Pharmacology*; Orthopaedics; Ophthalmology; and P.S.M. (2 posts).

(4) Sr. Residents / Demonstrator: Rs. 3000-3200 (To be revised to Rs. 3150-3350) Sr. (all posts Temporary on 3 year tenure Residency Scheme)—One each for the Department of Forensic Medicine*; Psychiatry; Orthopaedics*; P.S.M. Two each for the Departments of Biochemistry; Pathology; Paediatrics; Medicine; and Pharmacology; Surgery* (3 posts).

E.Q. for Professors; Readers and Lecturers : P.G. in the subject concerned as included in the Schedules of Medical Council of India Act, 1956/Ordinance

XXIV of the University of Delhi; For Sr. Resident/Sr. Demonstrator : P.G. degree or diploma in the subject after basic medical qualification.

Experience required : Professor—5 years as Reader / Assoc. Professor; Readers—3 years as Lecturer / Asstt. Professor; Lecturer—3 years as Demonstrator/Tutor/Registrar/Resident out of which one year after P.G.

B—NON-TEACHING

- (1) *Programmer-cum-Statistician (1 Post) for Computer Cell : Rs. 2200-4000; E.Q. : (a) A second class Master's degree in Maths or Statistics or Biometry; (b) (i) At least two years' experience in Computer Programming at a recognised institution; (ii) Good knowledge of an assembly language as well as FORTRAN.
- (2) *Technical Supervisor (Veterinary) (1 post) for Central Animal House—Rs. 1640-2900; NPA on Government rates may be possible; E.Q. : A graduate degree in Veterinary Science or Animal Husbandry from recognized University with two years experience of breeding and care of lab animals.
- (3) *Sr. Photographer (1 Post) for Photography Section : Rs. 1640-2900; E.Q. : Diploma in Arts & Photography from a recognised Institution. Experience in Micro-filming reflex printing, Projection slides, making reproduction of scientific drawing Charts and Dark Room Techniques. Some practical experience of Photography developing, Printing, enlarging, colouring and other processing work.
- (4) *Technician (1 post) for Central Animal House : Rs. 1400-2300; E.Q. : Graduate in Science preferably with Zoology as one of the subjects. Diploma in Laboratory Animal Sciences Course/Lab. Animal Technicians Course (Desirable) two years experience in Animal House and handling and breeding animals in a recognised/Government research Institution.
- (5) *Jr. Technician (Electronics) (1 post) for Central Workshop; Rs. 1400-2300; E.Q. : Matriculation or equivalent Exam. of a recognised University / Board. Certificate in Special Trade and atleast 5 years experience in a recognised Institution.
- (6) *Technical Assistant (11 posts) (3 posts reserved for SC, 2 posts reserved for ST and 4 posts reserved for Ex-servicemen); E.Q. : Graduate in Science from recognised University with two years experience in Speciality. Diploma in Medical Lab. Technology desirable.
- (7) Radiographer Technical Assistant (2 posts): Rs. 1320-2040; E.Q. : Matriculation or its equivalent from a recognised University / Board. Diploma (two years course) in Radiography technique from a recognised Institute. Desirable : Experience in the field.
- (8) *Dark Room Assistant (1 post) for Photography Section : Rs. 975-1540; E.Q. : Matriculation examination. Experience knowledge and Experience of Dark Room pro-

cessing and printing both black & white and coloured films. Experience of still and movie photography and preparation of projection of slides will be preferred.

- (9) Security Officer (1 post) : Rs. 1640-2900; E.Q. : A graduate from a recognised University. Five years experience as Watch and Ward Officer or Security Officer in a Government / Semi-government or large organisation. Desirable : Law Graduate with experience or vigilance work.
- (10) Receptionist (1 post) : Rs. 1400-2300; E.Q. : Bachelor's degree in Arts/Science / Commerce. Desirable : Should have experience in the field preferably education Institute.
- (11) Stenographer (3 posts) (1 post each reserved for SC, ST and Ex-service-man); Rs. 1200-2040; E.Q. : Matriculation or equivalent qualification with proficiency in shorthand at a speed of not less than 80 w.p.m. and proficiency in typewriting at a speed of not less than 35 w.p.m.
- (12) Jr. Assistant-cum-Typist (2 posts) (1 post each reserved for SC and ST); Rs. 950-1500; E.Q. : Matriculation or equivalent qualifications with minimum 35 w.p.m. in English Typewriting

*All those candidates who have applied for any of these posts in response to earlier advertisement of the College and for which selection has not so far been held, need not apply again. However, they may intimate the College if they still wish to be considered, in which case they may, if required update their Bio-data.

All posts carry usual allowances at the rates prescribed by the University from time to time.

The prescribed application form can be obtained from the office of the University College of Medical Sciences & G.T.B. Hospital, Shahdara, Delhi-110095, personally or on written request alongwith a self-addressed envelope of size 28cm x 13cm with postage stamps worth Rs. 1.15. The cost of one form for the teaching posts is Rs 2/- which can be sent if required by Indian Postal Order drawn in favour of the Principal, University College of Medical Sciences, G.T.B. Hospital, Shahdara, Delhi-110095

Residential accommodation within the campus may be possible to certain extent depending upon the availability of the houses.

PRINCIPAL

DR. YASHWANT SINGH PARMAR UNIVERSITY OF HORTICULTURE AND FORESTRY

ESTABLISHMENT BRANCH

Advertisement No 4/89

Applications are invited for the following posts on the prescribed form obtainable from the Office of the undersigned personally or by making written request accompanied by self-addressed envelope 23 x 10 cms size bearing stamp of Rs 6.00. The detailed instructions regarding qualifications and other conditions will be supplied alongwith the application form. The cost of application

form for all posts is Rs. 10/- which should be sent through Indian Postal Order(s), payable to the Comptroller, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Post Office Nauni, District Solan-173230 (Himachal Pradesh). The application form duly completed alongwith attested copies of testimonials and list of publications etc. should reach the Registrar, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Post Office Nauni, District Solan-173200 (HP) by 30.12.1989, Request for supply of application form without requisite fee shall not be entertained.

Candidates applying from abroad may send their applications on plain paper giving, full particulars of date of birth, examinations passed from High School onwards with division and percentage of marks obtained in various examinations, teaching/research/extension education experience with a list of publications, if any, so as to reach the undersigned by 13.01-1990.

I. Professor of Bio-technology—(1) in the grade of Rs. 4500-7300

II. Posts in the Grade of Rs. 3700-5700

1. Associate Professor of Forest Products and Utilization—(1)
2. Vegetable Breeder / Scientist (Olericulture)—(3)
3. Scientist of Fruit Breeding—(1)
4. Plant Pathologist—(1)
5. Mycologist (Mushroom)—(1)
6. Nematologist—(1)

III. Posts in the Grade of Rs. 2200-4000

1. Assistant Professor of Post Harvest Technology—(1)
2. Assistant Professor / Assistant Scientist of Soil Science and Water Management—(3)
3. Assistant Professors / Assistant Scientists of Horticulture / Pomology—(6)
4. Assistant Scientist of Fruit Breeding and Genetic Resources—(1)
5. Assistant Scientist of Vegetable Crops—(2)
6. Assistant Entomologists—(4)
7. Assistant Scientists of Forestry—(2)
8. Assistant Scientists of Mycology and Plant Pathology—(3)
9. Assistant Mycologist (Mushroom)—(1)

IV. Non-Teaching Posts

1. Technical Assistant Grade-I (Computer and Instrumentation Centre)—(1) (Rs. 1640-2925 Revised State Scale)
2. Junior Engineer (Hort)—(1) (Rs. 700-1200 Un-revised State Scale)
3. Photographer—(1) (Rs. 1500-2640 Revised State Scale)
4. Auto-Electrician—(1) (Rs. 950-1800 Revised State Scale)

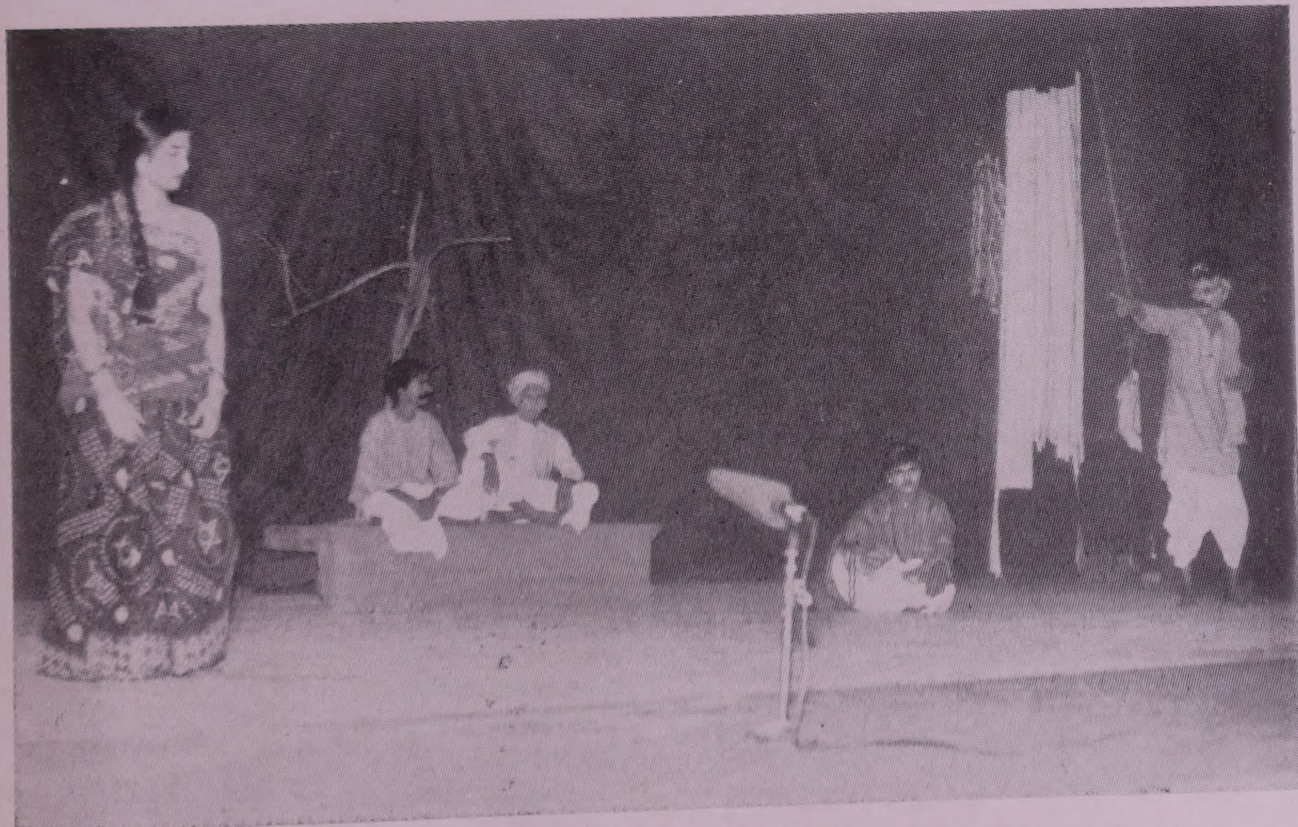
B.S. Nainta
REGISTRAR

East Zone Inter-University Youth Festival

A PHOTO FEATURE



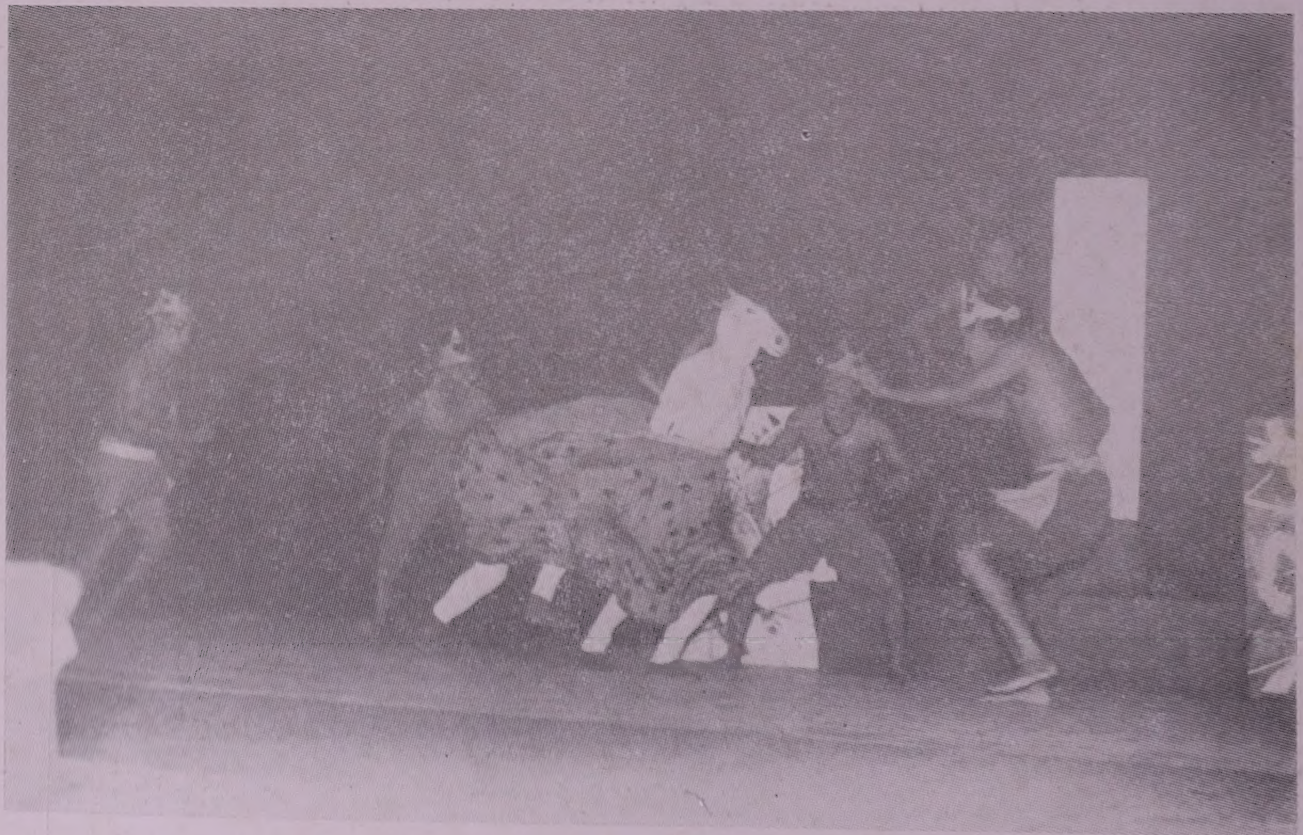
Manipuri Folk Dance by Manipur University



One Act Play by Patna University



Mime by Manipur University



One Act Play by Rabindra Bharati University